ABSTRACT

THE EFFECT OF SOCIAL COMPETENCE AND SOCIAL
CLIMATE ON ENGAGEMENT IN MIXED AND
SINGLE GENDERED MIDDLE
SCHOOL STUDENTS

by

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Main Adviser: Jaime Rodríguez Gómez

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Montemorelos University

School of Education

Title: THE EFFECT OF SOCIAL COMPETENCE AND SOCIAL CLIMATE ON EN-
GAGEMENT IN MIXED AND SINGLE GENDERED MIDDLE SCHOOL STU-
DENTS

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Problem

During adolescence student participation decreases due to self-esteem and con-
fidence. What is the effect of social competence and social climate on engagement in
mixed and single gendered middle school students?

Method

The quantitative investigation design that was utilized was a quasi-experimental
type. A mixed group was administered a pretest for engagement, competence and social
climate. The group was separated by males and females, over a three-week period. A
post-test was administered for engagement, competence, and social climate. The
research centered on the relationship that climate, competency, and engagement of
students by gender in middle school students in the Northeastern Conference of

Seventh-day Adventist, with a total of 144 survey responses from students (79 pre and 65 post). These students represented the middle school population in three schools for the respective days. The substantive statistical process was based on regression analysis, performed in Statistical Package for Social Sciences (SPSS), version 23.0.

The constructs for the three variables used were done through factorial analysis techniques (with explained variance levels of near or over 50%, which is acceptable) and the reliability, measured with the Cronbach alpha coefficient for each was acceptable. For the analysis of this hypothesis, the statistical technique of multiple linear regression was used.

Results

Social competence, social engagement and social climate not are different when students are in mixed or separate groups, according to gender, in Seventh-day Adventist schools at the Northeast Conference. For social competence and social climate as predictors of social engagement of students in mixed or separate groups, according to gender, the model showed significant difference with the factors regarding engagement. Therefore, it was able to reject the null hypothesis for both, showing that it was highly improbable that social competence and social climate could not be predictors of social engagement in mixed groups and in single gendered groups.

Conclusion

It is recommended that teachers and administration, recognize the importance of social competence, climate and engagement on adolescent students. The empirical evidence therefore supports the confirmatory of two hypothesis regarding engagement in middle schools in the Northeastern conference of the Seventh-day Adventists.

Montemorelos University

School of Education

THE EFFECT OF SOCIAL COMPETENCE AND SOCIAL
CLIMATE ON ENGAGEMENT IN MIXED AND
SINGLE GENDERED MIDDLE
SCHOOL STUDENTS

A dissertation
presented in partial fulfillment
of the requirements for the degree
Doctor in Education

by

Kimberly Hunt

June 2020

THE EFFECT OF SOCIAL COMPETENCE AND SOCIAL CLIMATE ON ENGAGEMENT IN MIXED AND SINGLE GENDERED MIDDLE SCHOOL STUDENTS

Tesis
presentada en cumplimiento parcial
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Educativa

por

Kimberly Denise Flynn
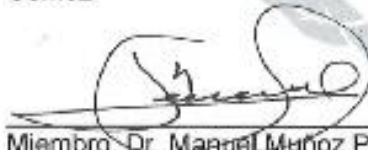
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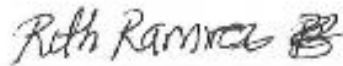Miembro: Dr. Manuel Muñoz Palomeque

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

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CHAPTER I

PROBLEM DIMENSION

Introduction

Studies have established a link between social competence and academic achievement. Engagement is a component of learning that is necessary to measure a student's thought process, verbal abilities, and knowledge about a content. Research indicates that males typically participate more than females and in adolescence, student participation decreases due to self-esteem and confidence. What is the effect of social competence and social climate on engagement in mixed and single gendered middle school students?

Background

The education system has undergone many changes since its inception. It has had to adjust to the growing populations in cities, vast types of learners from various backgrounds, and advances in technology. Because of these changes, the classroom size has grown and so has the demands placed on both teachers and students. Teaching models and learning styles have also evolved due to trends in education. Single sex classrooms have long existed in parochial schools. It has recently been introduced in charter and public schools in various states and countries. Also, studies have revealed that students of all ages have difficulty with feelings of inadequacy and self-worth. In their adolescent years, hormones, peer pressure, and physical changes

exacerbate the situation. Students begin to feel less confident in themselves thus stifling or inhibiting their participation patterns.

Peer relationships have a strong influence on academics. Research suggest that since childhood there is a link between poor attitudes towards school and performance. (Bernard, 1990). There are many factors that contribute to the inability for students to participate effectively in class, and maintain or voice their thoughts in discussions. Social anxiety and self -esteem, show a correlation with loneliness. Also, shyness -which can be defined as social anxiety, coupled with behavioral inhibition, is closely related to self-esteem.

Many students, due to shyness and feelings of intimidation or fear of rejection, have difficulty performing or participating. Students are fearful of participating in social environments because of their feelings of self- esteem and the event that their participation may be viewed incorrect or from previous experience with participating in class (Stoeckli, 2009).

Socially, most students adapt to the structure, separation and culture of school. They learn "critical social skills such as impulse control, communication, creativity and critical thinking and relationship or friendship skills" (Bernard, 1990, p. 2). However, some children naturally need more time and attention to adjust to school life, and adolescence. Studies suggest that "through reciprocal peer interactions children learn to share, help, comfort, and empathize with others" (Bernard, 1990, p. 3). It has also been found that students that have friends are less likely to engage in aggressive behaviors which can be derived from being lonely.

Gender based learning has become an accepted reality and has had a profound implication on how classrooms are designed, built and utilized from kindergarten to

college (Goebel, 2010). Kommer (2006) suggests that students should at some time have an opportunity to work in gender matched activities. They should also learn to function in a typical gender mismatched classroom. This allows students to be outside their comfort zone which will help with their less strong abilities.

In adolescence, views about adulthood are shaped and they look towards their role models for leadership and advice, but their peers still are central to them. Utilizing the differences among gender learning styles, have we assessed our current strategies and classroom models to see if they are meeting student's needs?

Research Problem

The problem statement of the present questions as follows:

1. Is engagement, social competence and social climate different in mixed and single gendered classes?

2. Can social climate increase the engagement of either gender?

3. Do teachers of mixed gender classes see improved engagement and competency skills after single gender groupings?

Hypothesis

The study hypothesis is presented below:

H_{i1}. Social competence, social engagement and social climate are different when students are in mixed groups or separate groups, according to gender, in Seventh-day Adventist schools at the Northeast Conference.

H_{i2}. Social competence and social climate are predictors of social engagement when students are in mixed according to gender.

H_{i3}. Social competence and social climate are predictors of social engagement

when students are separated according to gender.

The Purpose of the Study

The purpose of this study is to provide resources to teachers and students about the role that social climate, and competency have on the engagement patterns of students. With the right balance of comfort and opportunities for success, students will overcome anxiety of engagement, and teachers will gain insight for structuring lessons and classroom design that will lead to increased academic success.

Justification

The research is being conducted to gather additional data on the social aspects of adolescence. The knowledge gained from the social factors and methods of engagement among same gender grouping of students, will positively contribute to student's overall competency level.

Importance

The importance of this research is to gain an understanding of the social climate and output of students. When presented with gender specific instruction, administrators and teachers will be able to ascertain the benefits and effect of social competence on adolescent students. The outcome of this research will provide resources that will assist teachers in addressing student engagement and create interventions that will impact achievement.

Limitations

The study has the following limitations:

Limitations of the research to be considered was the small sample size, and

short duration of the study. Students mature at different rates, thus some of the responses may be affected by varying maturity and age levels.

Delimitations

The study has the following delimitations:

The delimitations that the researcher has concluded, is that the research was conducted among only Seventh- day Adventist schools and only with middle school students. The researcher was unable to conduct the study in the same subject in all three schools.

Assumptions

The assumptions about the research is that the students will answer the surveys honestly and the variables will be observed objectively.

Philosophical Background

Jesus's role on earth was to teach and minister to people's needs. Similarly, as an educator, the role is to guide students and teachers to higher learning. With the Bible as a blueprint for how to live, it is needed to understand that God's plan is the ultimate design. When God made man in the garden, Genesis 1:26 says "Let us make man in our own image, after our own likeness". The Father in heaven created man out of love, by hand. His breath and love flowed through his veins. The life force should be used daily to spread his love. And with this knowledge, lives should be of service to Him. Actions should be continually guided by how His people can bring glory and honor to Him. John 12:26 states that, "If any man serve me, let him follow me; and where I am, there shall also my servant be; if any man serve me, him will my Father honour". When

His people humbly desire to be a servant, God makes a way for His people to be used for His work. The profession of teaching is of most importance. For those who diligently seek to portray God's spirit and attitude of service, His people must stay connected to him.

Too often in society, Adventists lose the way with spreading God's message and also educating students. The role as Christian educators is to teach and model the love and Christ-like spirit that God showed when He came to earth. Education is not only about learning for the sake of intellectual growth. Adventist believe in developing physically, empathetically, socially and spiritually, too. Ideally, education should change and cultivate every aspect of lives, bringing each one much closer to what God originally planned to have and to be (Seventh-day Adventist Church, w. d.). The Adventist philosophical beliefs that center on education, are the characteristics that are needed to focus on for children in today's society. It is needed to focus on how to help them remain faithful, and how to develop a love for education and a God-like character. Education should motivate students to higher order thinking. Students question everything in a quest to find meaning and worth in their lives. In God's blueprint He designed, and lived by example, a sinless life so that each one could have eternal life. As educators, the main role is to motivate students towards seeking God's wisdom in their lives. It is through their co-operation of spirit and mind, and through learning about their similarities and differences as humans on earth, that they can be then used to minister to others in the future.

The term "homeschooling" means educating or schooling your child at home. Many in society believe that it started largely in the 1980's and 1990's as a way for Catholic parents to infuse religion into their children's education, now it has more of a

mainstream appeal (Weller, 2018). This alternative type of schooling came about also when families felt they did not want their children to learn from the liberal teachers that taught in schools that were often far from home. In recent years, homeschooling has exploded from nearly 1.1 million in 2003 to 1.5 million in 2007. According to the Department of Education, some 320,000 kids are being homeschooled in apartments, walk-ups, brownstones, and housing projects nationwide (Miller, 2012). Although home-schooling is on the rise again, the majority are taught in the classroom and the parent-taught home setting is in the minority, however useful it may be.

"Homeschooling" actually began in the Garden of Eden. The first parents had the responsibility to teach their children with regards to caring for themselves, the earth and spiritually also. What an awesome classroom, being taught hands-on in the Garden! Research now suggests that a hands-on approach is most beneficial for students. Studies also show the importance of being outdoors and the impact of getting exercise and fresh air. White (1952a) stressed the importance of exercise and fresh air in her book Child Guidance, she states, "moderate exercise everyday will impart to the muscles, which without exercise become flabby and enfeebled. By active exercise in the open air every day, the liver, kidneys, and lungs also will be strengthened to perform their work" (p. 339).

With modern advancement, being educated in the home was transformed to the classroom setting. Ellen G. White, in Child Guidance, gave insight on how to raise and teach children. She believed that is a need to work together in schools to bring about a feeling of unity among students. White (1980) states that "cooperation should be the spirit of the schoolroom, the law of its life. The teacher who gains the co-operation of his pupil secures an invaluable aid in maintaining order" (p. 285). There needs to be a

balance between the parents and the teachers to bring about collective union working together to help our students succeed. White also suggested that while it is important for the student to be obedient and learn much from their teachers, they must be molded and allowed to be independent thinkers. "Train every child to be self-reliant. From their earliest years, it is necessary to weave into the character principles of stern integrity, that the youth may reach the highest standard of manhood and womanhood" (White, 1954, p. 156). The only way that students will reach higher heights, is if they have a firm foundation and are able to stand independently and confidently.

Teachers must make the duty to strengthen the students daily with the word and with the ability to make thoughtful, and at times, difficult choices. "It is the privilege of teachers and parents to co-operate in the teaching of children how to drink in the gladness of Christ's life by learning to follow his example" (White, 1952b p. 184). The goal of teachers is to get students to take an active part in their learning. Lessons and activities should revolve around having students engaged and seeking knowledge. This knowledge must then be translated into service for God. In the book Child Guidance, White states that service for God is of most importance. "In little things of everyday experience, has power to mold the character and to direct the life into lines of unselfish ministry. To awaken this spirit, to encourage and rightly to direct it, is the parents' and the teachers' work" (White, 1982, p. 296).

From the beginning in the Garden, men and women had defined roles. The Bible states Adam had the role of naming the animals and after sin, "toiling the ground." God told Eve that Adam "shall rule over her" and "in sorrow Eve would conceive". These basic roles over time and with modern advancement have widened. These roles were made by God, well thought out, and were examples to follow to ensure the prosperity

of people. White (1952a) said that "the Lord made Adam and Eve and placed them in the Garden of Eden to dress the garden and keep it for the Lord. It was for their happiness to have some employment, or else the Lord would not have appointed them their work" (p. 345). White also stated that before the earth was even conceived, that the Lord designed that there would be a garden home where Adam and Eve would work taking care of it. She stated that "useful labor was to be their safeguard, and it was to be perpetuated through all generations to the close of earth's history.

God made human being uniquely different and even in history B.C. - Before Christ, the Jewish culture continued with many traditions and customs as to gender differences and the education. Jewish education began with the Old Testament during biblical times. The Bible main purpose is to give guide or standard of how to worship God, and the examples for us to be a follower of him. Jewish parents used the Torah to teach their children about prayers from a young age.

Deuteronomy 6:6-9 stated that,

and these words which I command thee this day shall be in thine heart: And thou shall teach them diligently unto thy children, and shalt talk of them diligently unto thy children, and shalt talk of them when thou sitteth in thine house, and when thy liest down, and when thou riseth up. And thou shall bind them for a sign upon thine hand, and they shall be as frontlets between thine eyes. And thou shall write them upon the posts of thine house and on thy gates.

In early Jewish education, the education of older boys and men was mandatory. Education was segregated by sex and education was mostly for studying the Jewish scriptures.

History shows that due to both culture and role norms of men and women in earlier time, education was segregated for different purposes by gender. The Orthodox community continues to hold these beliefs as biblical standard, but research also

9

proves that many of their ideals hold scientific weight as well. Psychological tests have discovered that men and women, or boys and girls, do much better in their own environment, with their own gender, away from any sexual pressures or intimidations (Weisberg, 2020). When the genders are separated, it increased their abilities to understand new learning.

Teachers must continue to seek understanding of similarities and differences. They are what make teachers higher order species. God gave teachers the ability to reason. With this ability, teachers need to carefully examine how these characteristics can help to provide instruction for students. Teachers cannot overlook the genetics, that are by design to make is inherently different. God designed teachers' characteristics differently to be utilized and beneficial to their family and complement their mate.

"Because it is the privilege and blessing of women to bear children, they are inclined toward predictability, stability, security, caution, and steadiness. The female temperament lends itself to nurturance, caring, sensitivity, tenderness, and compassion" (Dobson, & Boys, 2001, p. 27).

While these are important duties of a women, modern culture has evolved wherein, women have taken on working roles in order to sustain the household. With the need for two earners, women then sought the necessity to get an education that would allow them access to better employment. Males differ from females in their physique as well their emotional tendencies. Men on the other hand, have been designed for a different purpose.

"They value change, opportunity, risk, speculation, and adventure. They are designed to provide for their families physically and to protect them from harm and danger" (Dobson, & Boys, 2001, p. 27). Because of testosterone, men's brains actually are affected by this chemical.

Dobson also suggested that the flow of electricity from one side of the brain to the other is responsible for their emotional skills. Women, he explains, are better at accessing both sides of their brain. They typically are more verbal than men, however boys are typically better in math and science than females. Thankfully, God had the perfect plan for creating two beings that are very different but can balance each other.

The education of children, the passing of knowledge skills and inheritance, is what as teachers were made to do. With the introduction of sin into this world, the first family encountered jealousy, murder, and the likes that as a society that still dealing with today. The values, traditions, religion, and sanctity of family have been in jeopardy for centuries. The struggle to have balance with new knowledge, and previously acquired thought has made it difficult to stand firm to our beliefs. The curse that God made in the Garden of putting enmity between your seed and her seed, has continued. God is in need of people who have a strong character and are willing to stand for what is right. White states that, "Character building is the most important work ever entrusted to human beings: and never before was its diligent study as important as now. Never was any precious generation called to meet issues so momentous" (White, 1952a, p. 225).

An educational system that is well rounded and provides for the needs and the educational strengths and weaknesses for each student is ideal. White states that, "a

balanced school program is needed. The faculties of the mind need cultivation, that they may be exercised to the glory of God" (White, 1982, p. 332).

The demands society has placed on education are now more rigorous than ever. Christian education has withstood the test of time. "True education means more than the pursuit of a certain course of study. In the highest sense, the work of education and the work of redemption are one" (White, 1952a, p. 13. Unfortunately, society is turning away from God. Many parochial schools are closing due to low enrollment and the competition of many other institutions. Parents are choosing to give their children more diverse options, but at what cost?

"The Adventist Youth Ministries department mission statement reflects its emphasis on service and its confidence in the abilities of the younger generation: To lead young people into a saving relationship with Jesus Christ and help them embrace His call to discipleship. Seventh-day Adventist Church having more options for academics and social interactions cannot take the place of the relationship that young people must build with Jesus Christ. Do they know Jesus as their personal savior? In the education section on Adventist.org it states the importance of teaching a "whole life" for a lifetime. The Adventist education system reflects the heavenly society God intended. It connects teachers as friends, as partners and as a community. Most importantly, it helps to fulfill teachers' potential of being good citizens, eagerly anticipating an eternity with the God who created them.

If a parent needed more encouragement to enroll their child in an Adventist organization, there are seven reasons why a parent should send their child to the Adventist School. Below are mentioned:

1. Teachers will love their students and hold in high regard their roles as "surrogate parents" and revel in every opportunity to lovingly guide their students' character development.

2. The Bible is taught in Adventist school. Children get an understanding of the true character of God. The will have the blessing of meeting Jesus and hopefully desire to commit their lives to him.

3. Students can become a part of the family of God. Children learn that importance of their family, and how God is in the center. Students will have the ability to be enlightened of their awesome responsibility to spread the gospel to those they come in contact with.

4. They learn about Inspiration. Children are given the opportunity to learn by means of classes, worship, and other activities that can help them desire to be closer to Jesus.

5. Children will have the ability to get a strong spiritual education, which incorporates the goals of Adventist Education –this will help prepare the youth for a life-long attitude of service.

6. Discipline from a Christian perspective. Christian teachers provide discipline and shape mis-steps with opportunities for growth. Techers lead with the attitude of grace and mercy helping the children fit the mold of "disciples".

7. The school atmosphere is wholesome. Christian parents are looking for a safe, loving environment for their children. Students often look towards their peers for values and lifestyle. In Christian education, student leaders learn they have an positive influence on the minds and hearts of the students they interact with.

Teachers, must also stay in communication with God. Teachers have to put trust and faith in Him to be the leader of their lives. Once educators receive knowledge, sometimes they tend to rely on themselves more heavily than they should. Teachers must acknowledge where wisdom comes from and daily ask Him to lead their thoughts and actions in the classroom. White states that, "Faith is trusting God, believing that He loves us, and knows what is best for our good. Thus, instead of our own, it leads us to choose His way" (White, 1952a, p. 253). Proverbs 1:1 says, "to know wisdom and instruction to understand words of insight. To receive instruction in wise dealing, in righteousness, justice, and equity; to give prudence to the simple, knowledge and discretion to the youth." Proverbs 22:6 states, "Start children off on the way they should go and even when they are old they will not turn from it."

Many parents and teachers need only to be reminded that their purpose in these last days is to spread the message of God's love and His soon coming. The signs all foretell that human truly are living in the last days. What part will teachers play in the end of earth's history? God has allowed teachers to see unimaginable events and they have achieved and excelled to lofty heights. Teachers must continue to work co-operatively and embrace their differences and use them for God's glory. God's message is clear and the same as it was when He ascended. Our mission is to "Go ye therefore, and teach all nations, baptizing them in the name of the Father, and of the Son and of the Holy Ghost: Teaching them to observe all things whatsoever I have commanded you: and lo I am with you always even unto the end of the World" (Matthew 28:19, 20).

Even though God was physically in the Garden with Adam and Eve, guiding and teaching them about their role, they still fell prey to deception. As human beings and students in this society, teachers make presumptions and use prior knowledge and

information, experiences and interests when presented new information. The teaching styles, student learning styles, teacher and student fatigue, social environment and social confidence all can have an effect on their level of engagement. In the Garden of Eden such similar events led to the decisions of Adam and Eve. Their prior learning of the Tree of Knowledge of Good and Evil, their relationship with God, and their emotions affected Eve's ability to be deceived, and Adam's choice, based on emotion for Eve, led him to willingly sin. What effect did the feminine and masculine traits effect or skew their interests- leading them astray or distracting them from God's word? Teachers have a blueprint of God's design for them. It is their challenge and charge to utilize and bridge these differences for the betterment of our society.

Definition of Terms

Social Competence: Is described as the process of developing behaviors and skills students put into practice in their lives. This includes the ability to create and maintain interactions with peers which also impact adaptation and psychosocial adjustment of children.

Engagement: Is defined as a balance between the student's capability for learning and the expectations of learning in a particular environment- both capability and expectations are context specific (Cavanaugh, et al., 2008).

Social Climate. The classroom environment, or classroom climate, is an atmosphere where learning occurs (Fraser, 1987; Johnson, & McClure, 2004).

Participation. Is a process of active engagement involving, preparation, contribution to discussion, group skills, communication skills, and attendance" (James, 2016).

Single Gender Education: Is both classes and schools that have only one sex, defined by a biological classification.

Seventh-day Adventist: Protestant Christian movement that believe in the Sabbath as the seventh day, and the scripture as the only standard of faith**.**

CHAPTER II

LITERATURE REVIEW

Introduction

In this chapter, a theoretical review of the different variables considered in the study is made. This includes some elements, such as the concept, the importance of the different variables and some research. The educational system has transformed over the years from homeschooling, to charter schools. Teaching styles and practices are ever changing. Adolescences is a time when students go through a period of evolving. Teacher relations that lead to better competence and engagement is necessary for students.

Social Competence

In accordance with Han and Kemple (2006) social competence is a term that is used commonly among professionals, however it has many definitions and components to it. One definition is described as the ability to develop behaviors and skills that students utilize in their lives to foster and sustain interactions with peers.

Another author suggests, social competences can be conceptualized as social regulation which includes the ability to relate cognitive and emotional processes, and achieve and maintain relationships with peers in many different social environments (Battaglia, et al., 2017).

In another article Warnes, Sheridan, Geske, and Warnes (2005) describe two

different concepts with social skills as the conductor that links behavior and social competence that others observe. Similarly, Kanning (2006) and Monnier (2015) conclude that social competence is a compartment where an individual's emotions are contained and regulated.

Yet still another definition from Weinert (as cited in Monnier, 2015), takes a cognitive approach which led to understanding of competence. She defines competence as "combinations of those cognitive, motivational, moral, and social skills available to (or potentially learnable by) a person or a social group that underlie the successful mastery through appropriate understanding and actions of a range of demands, tasks, problems, and goals" (p. 71).

All definitions include the ability for an individual to analyze social contexts and process related information successfully, which allow one to conduct themselves and interact in a social environment. Many students today have difficulty interacting with their peers or socializing in both the academic and non-academic environments. Peer pressure, fear of rejection, social media and other factors impact the ability for students to successfully engage. Students feel this need to fit in' and 'be accepted' by their peers. In the development of social needs, students believe peer acceptance is most important in school (Stoeckli, 2009).

It has been documented that there is a link between academics and social skills. Children with social competence are able to be more successful students than those who have little or no peer social interactions (Parker, & Asher, 1993). More assistance is necessary for those who are struggling with their social competence. Research shows that difficulty, in regards to the social aspects of a child's life may lead to a

decreased ability to transition into adulthood leading to feelings of loneliness (DiTom-maso, Brannen-McNulty, Ross, & Burgess, 2003). Due to the sheer complexities and importance of understanding how these changes affect student's development, and how these skills will prepare them moving forward, further research is necessary for those who are struggling with their social competence. As students grow into young adults, they will continue to navigate their environment socially.

Studies indicate that peers may play a particularly important role in the develop-ment of children's gender identities. "Boys and girls create very distinct cultures. When they are in the same gender groups they act and play very differently. Girls are talkative and co-operative, and boys are competitive and physical" (Kommer, 2006, p. 247). It has however, been documented many times that genders can and do progress at dif-ferent rates. Girls learn by personal relationships and imitation. Zanders (as cited in Harris, 1999) states "that boys learn through defining a goal, restructuring the field, and applying abstract principles" (p. 16). Girls also hear and do better at literacy activities than boys. Boys also tend to do better than girls with spatial tasks and that confidence drops in many girls as compared with their confidence prior to middle school. Rothen-berg (1995) suggested that "compared to boys, adolescent girls experience greater stress and are likely to be depresses and attempt suicide four times as often" (p. 3).

While males have less of a confidence issue in middle school, there are other areas that are of concern. More boys than girls are suspended or have disciplinary problems. Also, compared to girls, more boys are identified as special education stu-dents and have a higher drop-out rate. Additionally, testosterone causes them to en-gage in more physically behavior. Boys also get varying levels of testosterone daily which accounts for their more anxious, and moody behavior (Kommer, 2006).

During adolescence, many youngsters experience anxiety and have poor self-esteem. While it is not completely clear if these feelings are biological or perceived, it is certain that during puberty hormonal and chemical changes occur in young adults. "Girls are beginning to judge themselves relative to how they are perceived by the opposite gender. In the attempt to become what they feel others expect them to be, girls quickly lose their own" (Kommer, 2006, p. 249). Girls are consumed with being perfect. They have poor body image and self-esteem. Many girls develop food disorders as a result of trying to reach a certain size. They are overwhelmed and bombarded by the media and society that promotes body images that make them feel inferior. "Girls speculate that in trying to keep up with the impossible demands of those unrealistic views of perfect feminine behavior, that they suppress some of their abilities to express anger or to assert themselves. They may begin to judge themselves through other's eyes and to question their own worth" (Rothenberg, 1995, p. 3). They no longer rely on their abilities and thoughts to guide their direction; they are more concerned with perception.

Studies indicate that girls mature faster than boys, and they process more sensory data than boys. "Evidence supports that the girls' well-developed brain circuits for gathering meaning from faces and tone of voice. This also pushes them to comprehend the social approval of others very early" (Goebel, 2010, p. 2). In the most current review of literature, research has suggested that academic success is affected by social competence. The Journal of Psychology and Psychological Therapy states, "social competence has been widely studied and is now recognized as a key factor in fostering positive social interactions, acceptance from others and friendships. It has also been recognized as a variable that promotes academic success" (Romera, Fernández

Rabanillo, Gómez Ortiz, & Ortega Ruiz, 2017). The instrument used by this study was a cross-sectional, and ex post-facto design and questionnaires were given anonymously. The research determined that developmental goals directly affected motivational patterns and were "driving forces" of how students engaged in positive relationships. The authors also determined that "children who feel they have social support will in turn have a positive perception of their peers and this interaction will influence their social competence" (p. 345).

Bandura (1977) stated, "if students believe they can accomplish the learning, they will try hard enough to succeed. Such efforts "promote development of skills and a sense of personal efficacy" (p. 127). Once a student has navigated through the cognitive, motivational, affective, and selection processes and has decided to learn certain concepts, the student's "self-efficaciousness intensifies and sustains the effort needed to realize challenging goals" (Bandura, & Cervone, 1983, p. 1027). In other words, students are willing to learn what they find meaningful and feel is attainable for them to learn.

Moreover, Fried, and Chapman (2012) suggested that resilience and engagement were essential in successful middle schoolers. "Of these protective factors, social competence has been linked with emotion regulation, with researchers deducing that emotion regulation skills are considered part of the skills repertoire of a socially competent student" (p. 300).

Research conducted by Martin (2001, as cited in Fried, & Chapman, 2012, p. 306), also found evidence that "students who use avoidance strategies are less likely than others to present themselves with the opportunities to develop a strong self-concept. Also, students who lack personal competence are more likely to use avoidance

strategies in the classroom than others". Avoidance is used at times to protect student self-esteem. Eccles and Wigfield (2002) and Elliot and Sheldon (1997) found in their research that students that engaged in avoidance behavior were those students that also had lower self- esteem than those who had better participation habits.

Deci and Ryan (1985) in their self-determination theory suggested two perspectives on motivation. One was that humans are motivated to maintain a certain level of stimulation, and they also have a need for competence. According to Skinner, Furrer, Marchand, and Kindermann (2008), competence can be considered one of the most readily studied academic areas. Harter (1992) and Bandura (1977) suggest that the ability to self-motivate, have academic competence, and control are significant predictors of their abilities to succeed or if they fail in school.

<div align="center">Importance</div>

Competence is important because as Piispanen and Meriläinen (2019) points out, "current and future society requires its members to have the competencies that cross the boundaries and link different fields of knowledge and skills at the level of the individual and the community" (p. 87). Additionally, Kanning (2014) describes social competencies as one's ability to be able to integrate oneself into society and furthermore, to internalize the society's norms and values. In order to conduct the various forms of research that have been read about, a number of different instruments were looked at. While all instruments measured the desired construct set forth by the writers, the Multidimensional Social Competence Scale (MSCS) (Trevisan, Tafreshi, Slaney,

Yager, & Iarocci, 2018), and Harter's Perceived Competence Scale for Children (Harter, 1982) were the ones that were best suited to this research in question and formed the base for the Social Competence section of this research.

Engagement

Student engagement has been defined as "participation in educationally effective practices, both inside and outside the classroom, which leads to a range of measurable outcomes" (Trowler, 2010, p. 7).

Skinner, Wellborn, and Connell (1990) as referenced by Handelsman, Briggs, Sullivan, and Towler (2005), describes engagement as "children's initiation, of action, effort, and persistence on schoolwork, as well their ambient emotional states during learning activities" (p. 185).

James (2016), describes participation as "a process of active engagement involving, preparation, contribution to discussion, group skills, communication skills, and attendance" (p.13). Many definitions exist on the term "engagement". It also has been described by Fredricks, Filsecker, and Lawson (2016) as "multidimensional". In his literature he expressed that engagement is comprised of three dimensions: (a) behavioral, (b) emotional, and (c) cognitive. Behavioral engagement consists of participation, effort, attention, persistence, positive conduct, and the absence of disruptive behavior. Emotional engagement is the positive and negative reactions to teachers, classmates, academics, or school; sense of belonging, and identification to school and subject. Cognitive engagement is described as "self-regulated learning using deep strategies and exerting the necessary effort for comprehension of complex ideas" (p. 2).

Skinner, et al. (2008), stated that emotional engagement is what leads to long lasting motivation: It is the "strongest contributor to the forward internal dynamics of engagement, bolstering behavioral engagement and staving off behavioral disaffection" (p. 787).

Skinner, et al. (2008) suggested that students that are more engaged are more inclined to be successful academically. She also reported that there was a significant drop off of student engagement and interest from kindergarten, until the end of high school. There was a significant loss with students in the transitional years of middle school to high school. Skinner suggested that boys, and minority students from poorer backgrounds had difficulty with engagement. She also suggested that teacher involvement was critical in engagement. Students who had more involved teachers were more engaged.

In the review of current literature, researchers have found that participation is described as "a process of active engagement involving preparation, contribution to discussion, group skills, communication skills and attendance." The researchers also went on to suggest that in an ideal discussion, students will "put forth effort and try to understand a topic" (James, 2016, p. 13). It was determined that lectures are the least engaging, and working in groups was the most engaging. Students also engaged more when they had the freedom to be independent. Evidence also suggested that students understand the importance of participation and engagement, however, research shows that a small percentage of students participate regularly. In a study on participation in a classroom, in a talk time situation of college students, it was determined that boys were eight times more likely to call out answers than girls. In the research it also illustrated that this occurred even though males were outnumbered by females. It was also

perceived that teachers may encourage males to participate more. Of the students surveyed, both males and females felt pressured to have the right answer before responding, however, males responded more. It was suggested that "fear of public judgement can deter female students from participating" (Goebel, 2010, p. 2).

Research has indicated that one of the reasons that students do not participate is due to confidence and large class size. Confidence level in a class can affect participation and hinder engagement. "Being nervous and apprehensive about speaking out is a common problem in students and research shows that 60% of students will not participate due to this. If students are led to believe that their ideas are important, they are more likely to contribute. The more knowledgeable students become about the subject and better they get to know their fellow students, the more likely they are to participate" (James, 2016, p. 14). They also discovered that even with motivation, allowing for preparedness and other various indicators, many students were still unwilling to regularly participate.

In other research, Galvin, Dolly, and Pula (2013) studied how a linguistic professor sought to research the way each gender communicated. In this research it was discussed that the trend was for males to talk more than girls in classroom settings. Their research revealed that in a college classroom participation studies between 1976 and 1990, none revealed that women participated more than men did. The research participants in the study consisted of 20 students in a college level English course. The group was divided into two groups of 10, each containing four boys. The method used was totally during each class, when participation was noticed. Observation was purely on a voluntary basis, and the students were never aware that their participation was being observed. The research concluded that even though the boys were outnumbered

by the girls, in both groups, the boys participated more. In a multiple choice survey about each student's satisfaction with their participation, more men than women reported that they wanted to participate then the actually did in class. The research suggested that participation may be because of a student's situation or because of their personality. They concluded that more research is necessary to examine participation patterns.

One study found a way to increase participation and engagement was to consider the grouping of students with the same teacher. Grant (2000, cited in Juvonen, 2007) suggested that keeping teachers and students together for a few years increases positive interactions and outcomes, because teachers keep a closer interaction over student's progress to keep them from being overlooked. Similarly, a report by Hancock (2011) in a Smithsonian magazine article in the indicated that many schools in Finland are small enough that teachers know all of the students. In many schools, the teacher remains with their students for a few grades. This helps students succeed because teachers know their personalities, learning styles and can assist immediately when problems arise instead of students failing and then teachers becoming reactive versus proactive to the needs of the students.

Fan (2011) suggested the importance of teachers and peers in student school motivation. Results confirmed that teacher–student relationship which is supported by a caring teacher, increases the student's self-perceived confidence in classroom learning. Fan also suggested that another key point for engagement was having students understand the importance of learning and achieving needed to be relayed to students. "One way for teachers to do this is to foster a warm and encouraging relationship with students, through which students are likely to feel more confident

about their abilities and view studying more important in helping them achieve their goals. Consequently, students become more engaged in learning activities" (p. 171).

The need to develop friendships is crucial for adolescents. "Peer interaction is conducive, perhaps even essential to a host of early achievements" (Bernard, 1990, p. 2). Schools that can assist students with their academic goals for the future, as well as provide all necessary social opportunities through various means, help students positively navigate the difficult adolescent years.

Newman (1990) suggested that help exchanges between peers is critical for student interactions. Having this support can assist students with their difficulty to engage. Shin (2018) also notes that reinforcement of engagement happens when students have help seeking interactions with peers.

Skinner, et al. (2008) suggested that "the clearest contributor to engagement was a sense of autonomy. Autonomy was a particularly strong predictor of changes in emotional engagement and disaffection especially, as expected, of changes in boredom and frustration" (p. 777). Students who start the school year with high autonomy showed improvement in engagement. Those who had low autonomy had lower satisfaction and withdrew from participating. Ruzek, et al. (2016) also noted that students who felt they had the ability to choose their everyday activities in class were those who also had the more positive relationships with their peers.

Lietaert, Roorda, Laevers, Verschueren, and De Fraine (2015) stated that concerning autonomy, he also confirmed with fellow researchers (Geist, & King, 2008; Hamre, & Pianta, 2001) that giving choice and showing relevance in a class is more important for boys to become engaged than it is for girls. He also felt that it was "necessary to have autonomy support especially for boys because it showed evidence of a

27

protective factor for boys' engagement" (p. 513). Lietaert suggested that by providing more autonomy in class the gender gap between boys and girls could be decreased. He concluded that teachers needed to understand the risk of boys having lower behavioral engagement than girls and it is related to boys having a perception of lower teacher support and involvement. He suggested that teachers should assess their teaching and observe which classes are students less engaged and assess if their involvement and support for those students is related to student engagement.

Ruzek, et al. (2016) reported that research "confirms that adolescent students report being more engaged in classrooms where teachers are observed to be more emotionally-supportive and become more motivated toward competence in such classrooms" (p. 102). Green (2008, cited in Thijs, & Verkuyten, 2009) "found that teacher support positively affected initial (or base) levels of engagement among female students, compared to male students. Thus, it appears that girls are quicker than boys to respond to the involvement of their teachers" (p. 272).

Importance

Mikami, Ruzek, Hafen, Gregory, and Allen (2017) discussed the importance of engagement. They suggest that secondary school is a critical time for adolescent peer relationships and a decline can occur in classroom engagement.

These authors (Liem, & Martin, 2011; Ford, & Smith 2007; Juvonen, 2007; Ryan, 2000; Wentzel, 1997) discuss the general agreement between theorists about benefits and positive peer relationships for adolescence, academic and non-academic functioning. Findings indicate that adolescence that are involved in positive peer interactions have higher engagement (Keefe, & Berndt, 1996; Ladd, 1990; Ladd, & Price, 1987).

Martin and Dowson (2009, cited in Liem, & Martin, 2011), discussed that positive peer relationships lead to better school engagement and fulfill a sense of belonging.

Lerner (2002) and Sameroff (2010) propose that schools need to change in appropriate ways if they plan to meet the needs and unique challenges that exist among adolescence. In order to motivate and engage them, new developmental systems would need to be considered.

In order to conduct the various forms of research that have been read about, a number of different instruments were looked at. While all instruments measured the desired construct set forth by the writers, the Structure of Student Course Engagement Questionnaire (SCEQ) (Handelsman, et al., 2005; Burch, Heller, Burch, Freed, & Steed, 2015) were the ones that were best suited to this research in question and formed the base for the Social Engagement section of this research

Social Climate

Fraser (1994) as referenced by Johnson and McClure (2004) stated that the classroom environment, or classroom climate, is an atmosphere where learning occurs.

Khine, Fraser, Afari, Oo, and Kyaw (2017) describe the learning environment as "the psychological, sociological and physical aspects of the classroom and interactions that occur between teachers and students in the instructional contexts in which student's learning is taking place" (p. 1).

Eccles, Wigfield, Harold, and Blumenfeld (1993) describes in the person-environment fit theory that "behavior, motivation, and mental health are influenced by the fit between the characteristics individuals bring to their social environments and the characteristics of these social environments" (Eccles, et al., 1993, p. 830). An example

29

of the personal fit theory by Eccles and Roeser (2009) is the girl-friendly classroom. Investigations have suggested that students are highly motivated to learn when their interests, skill level, and psychological needs fit well. "They also fit well when activity is challenging, interesting, and meaningful" (p. 409). Spence (2016) suggests that when students are not appropriately paired with their classroom environment, the student can be less motivated and not perform to their ability. Similarly, Aldridge, et al. (2016) in their research also indicated that the school climate could influence students' life satisfaction. "Social settings play a crucial role in satisfying these needs, and teachers are important agents in the students' environment". Thijis and Verkuyten (2009) suggested that it is important to understand how teachers create conditions for engagement in whole-class settings. "The study of teacher types appears to provide a useful way to examine these combinations. They believe that it is necessary to take individual characteristics into consideration because every teacher and their student's reactions to instruction are very different" (p. 283).

Teacher-student interaction plays a significant role in the development of confidence and competence in the classroom. Patrick, Kaplan, and Ryan (2011) and Fraser, Aldridge, and Adolphe (2010) additionally, identify the social aspects of a teacher's emotional support, academic support, promotion of mutual respect, and promotion of task-related interaction and how it attributes to the motivation and interest of student engagement. Noddings (as cited in Wentzel, 1997) posits "the academic objectives of schools cannot be met unless teachers provide students with a caring and supportive classroom environment" (p. 411).

According to the self-system model of motivation (Connell, & Wellborn, 1991; Skinner and Belmont (1993 as cited in Thijs, & Verkuyten, 2009) says: "engagement is

dependent on the extent to which one's basic psychological needs are met" (p. 272).

People need to feel safe in their surroundings in order to act autonomously and become comfortable in their environment. Eccles, et al. (1993) stated that school environment changes can have a harmful effect on adolescent students. She suggested that in adolescence, students rapidly tend to focus more on peer interactions, self-focus, abstract cognitive abilities and heterosexual relationships. During this transitional period of middle school, if school climates are more concentrated on social comparisons, competition, and performance based mastery, this then can lower their abilities to have appropriate decision making skills, and impacts their ability to form secure safe relationships with teachers at a time when it is most needed. Proponents of co-education suggest that mixed gender schools allow students to equally be exposed to the same subjects by the same teacher together, however, it actually reduces it.

Riordan (1994) indicated that equality does not naturally occur within co-educational classrooms. Not all students are given the opportunity to participate in class discussions and engage in active learning. Similarly, Mael, Smith, Alonso, Rogers, and Gibson (2004) was influenced from Pollack (1998) and states that coeducational schools fail boys in four ways. He believed that males are not assisted as much with reading and writing. Boys were also overlooked concerning their social and emotional needs. He suggested that teachers and administrators needed better methods concerning disciplining boys, and that most teaching methods were not geared to boys and their needs.

At first it was thought that males were the only gender to be educated. Eventually when females were then able to be educated it produced female only institution. In later

years, only the wealthy could be educated. This then led to the "common school movement that working class and poor were deemed fit for education. During this era, public schools became co-educational not for any philosophical reason, but due to efficiency and budgetary concerns stemming from the growth of willing students" (Mansfield, 2013, p. 4).

Single gender education is referred to as classes or schools that have only one sex, defined by a biological classification has gained in popularity due to the ability to strengthen the genders through multiple opportunities. Additionally, research has indicated that single sex learning can benefit girls by allowing them the opportunity to develop critical thinking skills and effort, as a way to build up their confidence. Other studies show a 65 percent increase in grade point averages of students in single sex classrooms (Lamour, 2009).

Harris (1999) also stated the how important it was for peers to have similar attitudes of those whom of the same gender which helped them be more alike. This helps student have a feeling of belonging. Bednell (1993, cited in Wills, Kilpatrick, & Hutton, 2006) also agreed that this sense of belonging will "improve the confidence of a student in class" (p. 14). In research by Harter, Waters, Whitesell, and Kostelic (1998), student voice was associated with self-esteem. Research indicated that the female voice or (expressing their opinions) was strongest between close friends. The next was between female associations and the least was with peers of the opposite sex and teachers. Similarly, Singh and Mitchell (1998), reports "single-sex classes for women are not subject to the persistent bias in teacher-student interactions found in mixed-gender classrooms" (p. 159).

Riordan (1994) and Singh and Mitchell (1998) as cited by Singh suggests having males grouped by gender is very beneficial for African American students in the United States. Singh and Mitchell also suggested that, "Future research should explore the actual practices within single-sex and coeducational classes serving inner-city African American males to better understand the full range of racial/ethnic and social-class-related conditions related to these unique educational environments" (p. 158).

Riordan (2002, cited in Sullivan, Joshi, and Leonard (2010) reflects these concerns with the prevalence of anti-learning social norms within many schools and suggests that single-sex schooling may help to overcome these problems, especially among poor and ethnic minority youth.

As previously stated, single gender schools have been in existence in private, religious settings for many years. The public sector recently began making allowances for schools having single gender classes and schools, if they meet specific criteria. Many parents have also been exploring this option due to the research that suggests the many benefits of having separate gender instruction. Many parents believed that single gender schools were more appealing for students and parents because they provided a better learning environment with less distractions. Some advocates of single sex schools believe that boys and girls have different learning styles that are based on structural and physiological differences in the brains of boys and girls. Because of these circumstances, it is believed that they need different learning environments (Gurian, & Henley, 2001) and Eliot (2011) reviewed neuroscience research and suggests that there are "few reliable differences between boys' and girls' brains relevant to learning or education" (p. 363).

Liem and Martin (2011) found evidence that relationships with peers of the opposite sex have less of a positive connection with respect to school engagement and are not as strong as same gender classmates. Else-Quest and Peterca (2015), suggests that single sex schools reduces sexual distraction from students who are in co-educational environments. Additionally, Liem and Martin (2011) indicated in his findings that adolescents begin to interact more with opposite sex peers, however they are not their primary friends, which tend to be of the same sex. Peers of the opposite sex at this time can be more of a distraction and can lower engagement. "Opposite-sex peer relationships positively predicted school engagement and yielded positive direct and indirect effects in relation to general self-esteem, but mediation *via* school engagement was not as strong as that of same-sex peers" (p. 200).

One of the requirements of having a publicly funded education is that there are stipulations on how equitable the services and education is to all students. The focus of research into the single sex school debate, is now surrounding the legal policies that many districts are challenged with when considering opening such a school. Mansfield (2013) stated that schools offering gender-separate classrooms increased from four in 1998 to 228 in 2000; with 44 of those schools entirely single sex. Title IX funding is given to schools and it prohibits sex discrimination in education programs.

Unfortunately, many are compelled to say that there should not be different educational methods to teach boys and girls. Districts now have to investigate and interpret policies that may legally challenge their need to have separate gender education. In research by Wills, Kilpatrick, and Hutton (2006) they set out to investigate if a single sex class was good practice in learner- centered education, and "what extent do the classes aid or hinder the development or effectiveness of the school" (p. 278). There

have been no in-depth studies of teachers becoming part of an altered classroom structure, changed from a coeducational to single sex learning environment in a government primary school (Parker, & Rennie, 1997; Wills, et al., 2006) also suggested that a strong relationship between teachers and students is necessary for teachers to educate effectively. It was identified that a supportive climate and students feeling secure before they are able to commit to more challenging and demanding work. Ryan (2000) also suggested that friend influence on negative behaviors happened less often when teachers demonstrated high emotional support.

In an article by Shin (2018) research was conducted on the role of help seeking tendencies during adolescent students. Based on prior research it was documented that help seeking is an important strategy of learning. The research indicated that friends choose friends that have similar adaptive and help seeking qualities. It is also true that friends look to other peers for academic support. Shin suggested that classrooms are "central sites for instruction and learning, understanding the nature of friend interactions that setting is important for appreciating the role friends play in academic behaviors. Peers also have an important role in student engagement and achievement in early adolescence" (p. 137).

Importance

The impact of who children are friends with, the environment in which they learn, and the way they engage, are all important in the development of students. It is crucial for parents to examine the learning environment to ensure that schools are meeting the needs of students, and that students are comfortable and confident engaging in class.

Harris (1999) Group Socialization Theory stated that peer groups had more of an impact on students than parents. Friendships outside of the home, with whom children spend most of their time, are where student's identities are developed. Similarly, Ryan and Patrick (2001) support this idea and in their finding indicate that social environment in a classroom is a necessity to motivation and engagement. Trickett and Moos (1973), Fraser and Fisher (1982), and Wentzel (1997) have studied the concepts of emotional and academic teacher support and their association with student motivation and engagement in class.

In order to conduct the various forms of research that has been described, a number of different instruments were examined. While all instruments measured the desired construct set forth by the writers, the Constructivist Learning Environment Survey (CLES) Johnson and McClure (2004), the Delaware School Climate Survey (DSCS) Bear, Gaskins, Blank, Chen (2011), and What Is Happening in this Class (WIHIC) questionnaire of MacLeod and Fraser (2010*),* were the ones that were best suited to this research in question and formed the base for the Social Climate section of this research.

CHAPTER III

METHODOLOGY

Introduction

The objective of this study is to determine if social competence and social climate effect the engagement patterns of students.

This chapter will explore the description of the methodology used during the investigation and addresses the design of the study, which includes: (a) the type of research, (b) the study population, (c) the sample, (d) the measuring instrument, (e) the null hypotheses, (f) the data collection, and (g) the data analysis.

Type of Investigation

The research design that was utilized in this investigation was a quasi-experimental type. A mixed group was administered a pretest for engagement and social climate. The group was separated by males and females, during a three-week period.

A post-test was administered for competency, engagement and social climate. Ary, Jacobs, and Sorensen (2010) describe a quasi-experimental design as one that is not randomly selected. In this investigation the students were not selected randomly, therefore it is quasi experimental. This instrument was administered to observe the changes in the constructs of competence, engagement and social climate within the gender groups.

Population and Sample

The research was conducted among sixth, seventh and eighth grade students in Seventh-day Adventist Schools in the Northeastern Conference. The conference has a limited amount of schools that contain middle school students. After acquiring permission, students and teachers were given the opportunity to participate in the study. The investigation was amongst approximately 79 students in the pre-test from South Brooklyn Academy (n = 16), Westchester Academy School (n = 24), and Linden SDA School in Queens (n = 37). There were 65 students in the post-test, from South Brooklyn Academy (n = 14), Westchester Academy School (n = 23), and Linden SDA School in Queens (n = 25). All of the previously stated schools are a co-educational setting. The observations, interviews and surveys were conducted with single gender groupings of students within a class or single gender classes when applicable. The goal of the research is to observe the outcomes of competency, social climate and engagement from the separation of girls and boys in a co-educational class.

Instruments

This section presents the different variables used in the study. Listed below is the scales from which the items for the instrument were derived. Included is the demographics and the three constructs areas on which the research focused.

The research used the Adolescent Engagement Competency Scale as the main instrument for the study. In Appendix A are the instruments. This survey was developed using the following surveys:

1. Structure of Student Course Engagement Questionnaire (SCEQ) (Handelsman, et al., 2005).

2. Harter's Perceived Competence Scale for Children (Harter, 1982).

3. Constructivist Learning Environment Survey (CLES) Johnson and McClure (2004).

4. Delaware School Climate Survey (DSCS) (Bear, et al., 2011).

5. Burch Engagement Survey for Students (BESS) (Burch, et al., 2015).

6. What Is Happening In Class (WIHIC) What Is Happening In this Class questionnaire MacLeod and Fraser (2010) modified version.

7. Multidimensional Social Competence Scale (MSCS) for young adults (Trevisan, et al., 2018).

The survey included four sections with the results from all sections being used in the study. Section 1 collected demographic information from the participants, while sections 2-4 will follow a 5-point Likert scale (true, sometimes true, not sure, mostly false, false).

1. Section 1. Demographics.

2. Section 2. Construct 1: Social Competence.

3. Section 3. Construct 2: Student Engagement.

4. Section 4. Construct 3: Social Climate.

Additionally, the teachers of the students were administered open ended questions to ascertain the competency, engagement and climate of the single gendered learning compared to traditional classrooms.

Operationalization of the Variables

Each variable is shown below with the conceptual, instrumental and operational definitions.

Social Competence

Conceptual Definition

The ability to develop behaviors and skills that students will utilize in their lives to foster and sustain interactions with peers (Han, & Kemple, 2006).

Instrumental Definition

Appendix A references the instrument used in this study and this variable of social competence is determined using the following questions.

1. I prefer to spend time alone
2. I enjoy spending time with people in class
3. I avoid talking to people in this class
4. I stay in the background in social group situations
5. I learn how to solve real life problems
6. I get anxious in class
7. I have a lot of friends in class
8. I am popular with my classmates
9. I do things with others in class
10. I am easy to like
11. I am comfortable voicing my opinions in class
12. It is easy for me to make friends
13. I am important to my classmates
14. I am not able to verbalize my thoughts to others in class
15. I am sure of myself in class
16. I misread social cues
17. I look people in the eye when speaking to them in class
18. I feel good about the way I act
19. I am a good person

Operational Definition

Using a Likert scale of 1 to 5, creates an interval system wherein the respondent can score from. The totals were derived using the arithmetic mean, and it was interpreted that the higher the score, the higher the level of social competence a student had. Additionally, item 1, 3, 4, 6, 14, and 16 were inverse questions and were coded oppositely for this scale.

Reference and Factors

The survey questions were adapted from the survey Harter's Perceived Competence Scale for Children, and the Multidimensional Social Competence Scale (MSCS) for young adults. The instrument had five dimensions: social motivation: 1, 2, 3, 4, 7, 8, 12, and 13; collaboration: 9, 11, 14, and 17; self-worth: 10, and 19; Self-confidence: 15, 18, and social adaptability: 5, 6, and 16.

<div align="center">Student Engagement</div>

Conceptual Definition

Engagement is referred as a students' presuppositions, actions, and intentional processes during learning, in and out of the classroom, that lead to measurable skills and competencies.

Instrumental Definition

Appendix A references the instrument used in this study and this variable of attitudes towards is determined using the following questions.

1. I am doing well on tests in class.
2. I am confident I can learn and do well in this class.
3. I study on a regular basis.
4. I put forth effort in class.
5. I do all the homework problems.
6. I look over the notes between classes to make sure I understand the material.
7. I am organized.
8. I take good notes in class.
9. I listen carefully in class.
10. I come to class prepared every day.
11. I think about the class when I am not in school.
12. I want to learn the subject matter.
13. I raise my hand in class.
14. I ask questions class.
15. I enjoy this class.
16. I participate actively in small group discussions.
18. I go to the teacher to review assignments or tests or to ask questions.
19. I help my fellow classmates.

20. I am getting a good grade in class.
21. I am not doing well in this class.

Operational Definition

Using a Likert scale of 1 to 5, creates an interval system wherein the respondent can score from. The totals were derived using the arithmetic mean, and were interpreted that the higher the score, the higher the level of student engagement a student has. Additionally, item number 21 was inverse and was coded oppositely for this scale.

Reference and Factors

The survey questions were adapted from the survey Structure of Student Course Engagement Questionnaire (SCEQ), Handelsman, et al. (2005) and Burch, et al. (2015). This instrument contains four dimensions: Skills: 3, 4, 5, 6, 8, 9, 10, and 11; emotional: 1, 2, 20, and 21; participation: 7, 14, 15, 17, and 18; and cognitive: 12, 13, 16, and 19.

<center>Social Climate</center>

Conceptual Definition

Social Climate refers to all factors of relationships between teacher and student, and student and peers that, incorporate the social, physical and mental wellbeing of the student which impact the students' ability to acquire learning.

Instrumental Definition

Appendix A references the instrument used in this study and this variable of use of social climate is determined using the following questions.

1. The teacher cares about the students
2. Adults who work in this school care about the students

3. The teacher treats students with respect
4. The teacher listens to you when you have a problem
5. The teacher lets you know when you are doing a good job
6. The teacher helps me with my work
7. I feel comfortable telling the teacher when I don't understand
8. The teacher takes a personal interest in me
9. Students in class really care about each other
10. Students get along with one another
11. Students treat each other with respect
12. Students are friendly towards most other students
13. I cooperate with others when doing assignments
14. I learn from other students in this class
15. When I work with other students in this class there is teamwork
16. I find it difficult to participate in this class
17. I give my opinions during discussions in this class
18. I am asked to explain how I solve problems
19. I discuss with others how to go about solving problems
20. What I learn is relevant to my future

Operational Definition

Using a Likert scale of 1 to 5, creates an interval system wherein the respondent can score from the totals were derived using the arithmetic mean and were interpreted that the higher the score, the greater the social climate was perceived. Additionally, item number 16 was inverse and was coded oppositely for this scale.

Reference and Factors

The survey questions were adapted from the Constructivist Learning Environment Survey (CLES) Johnson, and McClure (2004) the Delaware School Climate Survey (DSCS), of Bear, et al. (2011). What Is Happening in this Class (WIHIC) questionnaire MacLeod and Fraser (2010). This instrument contains four dimensions: Teacher relations: 1, 2, 3, 4, 5, 6, 7, and 8; student relations: 9, 10, 11, and 12; collaboration: 13, 14, 15, 19, and 20; and involvement: 16, 17, and 18.

Null Hypothesis

In this section describe the process to prove the null hypothesis.

H_{o1}: Social competence, social engagement and social climate are not different when students are in mixed groups or separate groups, according to gender, in Seventh-day Adventist schools at the Northeast Conference

In this hypothesis there are three dependent variables measured at a metric level and one independent variable measured at nominal level (mixed or separated groups according to gender). To test it, the statistical test of one factor MANOVA was used. The criterion to reject it is that the significance of the Wilks' Lambda be less than .05.

H_{o2}: Social competence and social climate are not predictors of social engagement when students are in mixed according to gender.

In this hypothesis there are two predictive variables and one criterion variable, all of them measured at the metric level. Multiple Linear Regression was used to test it, using a significance level of .05.

H_{o3}: Social competence and social climate are not predictors of social engagement when students are separated according to gender.

In this hypothesis there are two predictive variables and one criterion variable, all of them measured at the metric level. Multiple linear regression was used to test it, using a significance level of .05.

Data Collection

Before obtaining the data from the prospective schools for research at University of Montemorelos, the researched submitted the research proposal to the main advisor,

44

to get approval to conduct the research. After obtaining approval from the Superintendent of schools Northeastern Conference of Seventh day Adventists, the researcher contacted the principals of the schools to meet with the teachers and students who could provide the needed data. The researcher then worked with these students to obtain the needed data with respect to the privacy of the participants. The researcher did not share the data, except with the research methodology advisor. Additionally, the data was kept on a private, personal laptop.

Permission was requested of NEC Education Superintendent. The request was granted, and the researcher worked principals from the Linden School, South Brooklyn School, and Westchester Academy School, consents from parents of middle school students (see Appendix A).

Data Analysis

The IBM Statistical Package for the Social Science (SPSS) was used. Before to prove the hypothesis, use descriptive statistics like mean, standard deviation, histograms and frequency tables to show the distribution of the variables with the intention of knowing the behavior of them in the studied population. After to prove the hypothesis are using inferential statistics to explore relations between the principal variables with the demographic variables.

CHAPTER IV

ANALYSIS OF THE RESULTS

Introduction

The research focused on the relationship that social climate and competency have on the engagement of middle school students in three schools in the Northeastern Conference of Seventh-day Adventists, for a total of 144 instruments administered. The participants represented the middle school population of three schools on those days. The surveys were distributed manually, by the researcher, to the students in the schools.

Demographic Description

In the following section, the demographic results were collected. This information included the number of students that took the pre/post survey, age, grade, and subject, school attended, years attending the school and gender. In Appendix B are the supporting tables.

Pre/Post Survey

With respect to the sample of the students who took the previous survey and the subsequent survey, it was presented as follows: The students who were present on the first day of distribution of the instrument were 79 students. On the second visit, the post-

survey instrument was distributed to respondents in each school for a total of 65 students, 14 from the previous visit were absent. Due to the identity of the students being anonymous, the data of the absent students was not identified.

Age

Table 1 shows the distribution of age. Ninety-five percent of the population is between the ages of 11 to 13 years old, with 13 years old as the highest percentage of represented by 34%.

Table 1

Distribution of Participants by Level Age

Age	n	%
10	6	4.3
11	30	21.4
12	44	31.4
13	48	34.3
14	11	7.9
15	1	0.7
Total	140	100.0

Years in Attendance

Table 2 shows the distribution of the years in attendance the students have been in the school. There is an even tie for the highest amount of students being in the school for two and three years. These students have the same percentage (18.9%). Next are students that have been in the school for one year with 13.9%. The next highest is students that have been in the school for eight years which accounted for 9%. The next was those who had been in the school for six years (8.2%) followed by those there for

seven years which was 7.4% The remainder of the students' years of attendance, ac-

counted for less than 6% in each category.

Grade

Table 3 shows the distribution of the grade of the students. The highest grade is

the 8th, which was 50.3% of the respondents. This was followed by 6th grade, which is

25.9%. Lastly is 7th grade, which was 23.8% of the respondents.

Gender

The distribution of gender participants in the research shows that the male group

represents 54.9% of the participants and the female group represents 44.4% of the

participants.

Table 2

Distribution of Participants by Years in Attendance

Years	n	%
1	17	13.9
2	23	18.9
3	23	18.9
4	3	2.5
5	2	1.6
6	10	8.2
7	9	7.4
8	11	9.0
9	8	6.6
10	7	5.7
11	7	5.7
12	2	1.6
Total	122	100.0

Table 3

Distribution of Participants by Grade

Grade	n	%
6th	37	25.9
7th	34	23.8
8th	72	50.3
Total	143	100.0

Subject

Table 4 shows the distribution of the students that the following subjects when they participated in the research. 56.3% of the students were in gym, 22.2% were in Bible, and 21.5% were in social studies.

Table 4

Distribution of Participants by Subject

Subject	n	%
1 Social Studies	31	21.5
2 GYM	81	56.3
3 Bible	32	22.2
Total	144	100.0

School

Table 5 shows the distribution of the schools that the students in the survey attended: 44% of the students attended Linden SDA School, 34% of the students attended Westchester Area School, and 21.5% attended South Brooklyn Academy School.

Table 5

Distribution of Participants by School

School	n	%
SBA	31	21.5
WAS	49	34.0
LIN	64	44.4
Total	144	100.0

Validity and Reliability

The exploratory factorial analysis procedure was used to evaluate the validity of the constructs of social competence, social engagement and social climate. The principal component method with varimax rotation was used. For reliability, the Cronbach's alpha internal consistency coefficient was used, see Appendix C. The results of the validation of each variable are presented in the following paragraphs under the corresponding constructs. The statistical tests of the factor analysis for the constructs are presented as follows.

Social Competence

The factorial analysis procedure was used to analyze the validity of social competence. In the analysis of the correlation matrix, it was found that the 19 statements have a positive correlation coefficient greater than .3.

Regarding the sample adequacy measure KMO, a value close to the unit (KMO = .837) was found. For the Bartlett's Sphericity test, it was found that the results (X^2 = 694,651, df = 171, p = .000) are significant. This means that there is good correlation between the items in the construct.

For the extraction statistics by main components, it was found that for the commonality values (Com_{min} = .474; Com_{max} = .671). In relation to the total variance explained, an exploratory analysis was carried out with five factors, explaining 60.212% of the total variance, this value being greater than 50% established as a criterion.

Regarding the Rotated Component Matrix, the Varimax method was used. Table 6 presents information comparing the relative saturations or factor loadings of each indicator for the five factors of social competence. In this first analysis, three factors were identified, in addition to eliminating item five, for not considering it theoretically justifiable within the grouping factor.

The first factor consists of eight items and it is labelled, social motivation (SCSM). The reliability was .836. These have high load factors, ranging from -.433 to .737. Social motivation encompassed aspects like the importance of a student to his/her classmates. It also looked at popularity level and the number of friends that a student has. Additionally, it took into account if a student likes to be alone or if he/she enjoys spending time with friends. Within social motivation, the item that had the most influence on social competence was being important to the classmates (r = .737). Additionally, avoid talking to people in class (r = -.434) had the weakest influence and inverse on the variable.

The second factor consists of four items and it is labelled, Collaboration (SCCO). The reliability was .654. These have high load factors ranging from .646 to .703. Collaboration looks at how students work together and the ease with which a student is able to verbalize thoughts and opinions in class. The ability to make eye contact is taken into consideration in this factor. Within collaboration, the item that had the most

influence on social competence was I do things with others in class (r = .703). Conversely, look people in the eye when speaking to them in class (r = -.646) had the weakest and reverse influence on the variable.

The third factor consists of two items and it is labelled, Social Adaptability (SCSA). The reliability of this factor was very low ($α$ = .325) and when item 5 is included, reliability is even lower, so this was the statistical criterion to eliminate it. These have high load factors ranging from .548 to .583. This factor values the student's ability to understand social messages and manage a healthy level of anxiety.

Table 6

Rotated Matrix for Items in Social Competence

	Component				
	1	2	3	4	5
SCSM13 I am important to my classmates.	**.737**	.196	.150		
SCSM1 I prefer to spend time alone in class.	**-.68**		.134	-.36	
SCSM8 I am popular with my classmates.	**.664**	.179		-.14	-.27
SCSM4 I stay in the background in social group…	**-.64**			-.22	
SCSM7 I have a lot of friends in class.	**.621**	.270	.401		
SCSM2 I enjoy spending time with people in class.	**.598**	.473		.259	
SCSM12 It is easy for me to make friends.	**.562**	.122	.459	.314	-.11
SCSM3 I avoid talking to people in class.	**-.434**	-.42		-.18	.346
SCCO9 I do things with others in class.	.268	**.703**	.251	.148	
SCCO14 I am not able to verbalize my thoughts in…	-20	**-.67**		.180	
SCCO11 I am comfortable voicing my opinion in this…	.355	**.655**	-.11	.245	
SCCO17 I look people in the eye when speaking to…		**.646**		.402	.114
SCSW19 I am a good person.	-.14	-.18	**.768**	.138	.170
SCSW10 I am easy to like.	.329	.165	**.642**		-.15
SCSC15 I am sure of myself in class.	.126	.131		**.776**	.128
SCSC18 I feel good about the way I act.	.199	.115	.263	**.622**	-.30
SCSA5 I learn how to solve real life problems.		.268	.228		.729
SCSA6 I get anxious in class.	-.43	-.12			**.583**
SCSA16 I misread social cues in class.		-.32	-.42		**.548**

For the items in factors three and four, it was considered that they theoretically focus on the same aspect called Self Confidence (SCSC). With this intention, a factor analysis was performed considering only these four items and it was observed that it is one-dimensional (KMO = .564, Bartlett's Sphericity significance with p = .000) explaining 41.990% of the variance. The reliability of this factor was .535. This factor values the perception that the student has regarding his ability to feel comfortable with himself in his way of relating and having security within the group.

Student Engagement

The factorial analysis procedure was used to analyze the validity of student engagement. In the analysis of the correlation matrix, it was found that the 20 statements have a positive correlation coefficient greater than .3. Due to theoretical and statistical adjustment problems, it was decided to eliminate item 5 (I do all the homework problems). Regarding the sample adequacy measure KMO, a value lower but acceptable (KMO = .664) was found. For the Bartlett's Sphericity test, it was found that the results (X^2 = 639.596, df =190, p =.000) are significant. This means that there is good correlation between the items in the construct.

For the extraction statistics by main components, it was found that for the commonality values (Com_{min} = .174; Com_{max} = .668), that 18 items are greater than the extraction criterion (Com = .300). In relation to the total variance explained, a confirmatory analysis was carried out with four factors, explaining 48.136% of the total variance, this value being very close to 50% established as a criterion. Table 7 presents information comparing the relative saturations of each indicator for Student Engagement.

Table 7

Rotated Matrix for Items in Student Engagement

	Component			
	1	2	3	4
SESK10 I listen carefully in class.	**.717**		-.17	..135
SESK6 I stay up on the readings in class.	**.708**		.108	
SESK9 I take good notes in class.	**.629**	.317		
SESK11 I come to class prepared everyday.	**.460**			
SESK8 I am organized.	**.413**		.407	-.37
SESK4 I put forth effort in this class.	**.401**	.223	.266	.229
SESK3 I make sure to study on a regular basis.	**.344**		.172	.161
SEEM20 I am getting a good grade in class.		**.804**	.132	
SEEM21 I am not doing well in this class.		**-.68**	.153	
SEEM2 I am confident that I can learn and do well in this…		**.588**	.449	.134
SEEM1 I am doing well on tests in class.	.366	**.575**		
SEPA18 I go to the teacher to review assignments or tests.			**.710**	.171
SEPA15 I ask questions when I don't understand the…		.185	**.691**	.335
SEPA7 I look over the notes between classes to make sure…	.508		**.561**	
SEPA17 I participate actively in small group discussions.	.180	.118	**.466**	.394
SEPA14 I raise my hand in class.	.122		**.341**	.654
SECO12 I think about this class when I am not in school.			.101	**.645**
SECO16 I enjoy this class.	-.103	.466	.144	**.600**
SECO19 I help my fellow classmates.	.301	-.26	-.11	**.520**
SECO13 I want to learn the class subject matter.		.289	.299	**.493**

The first factor consists of seven indicators and it is labelled, Skills (SESK). The reliability was .641. These have high load factors ranging from .344 to .717. Skills encompassed aspects listening carefully in class, it took into account that student stay up on the readings in class, take good notes, comes to class prepared every day, is organized, puts forth effort in class, and make sure to study on a regular basis. Within skills, the item that had the most influence on student engagement was "I listen carefully in class" (r = .717). Conversely, "I make sure to study on a regular basis" (r = .344) had the weakest influence on the variable.

The second factor consists of four items and it is labelled, Emotional (SEEM).

The reliability was .647. These have high load factors ranging from .575 to .804. Emotional encompassed aspects like the importance of a student getting good grade. It also looked at student not doing well in class. Additionally, it took into account how a student is confident that he/she does well in this class and is doing well on tests in class. Within emotional, the item that had the most influence on student engagement was "I am getting a good grade in class" ($r = .804$). Additionally, "I am doing well on test in class" ($r = .575$) had the weakest influence on the variable.

The third factor consists of five items and it is labelled Participation (SEPA). The reliability was .677. These have high load factors ranging from .341 to .710. Participation encompassed aspects like the importance of a student going to the teacher to review assignments and tests. It also looked at student looking over notes between classes to make sure he/she understands the material. Additionally, it took into account how well a student participates actively in small group discussions. Within participation, the item that had the most influence on student engagement was "I go to the teacher to review assignments or tests" ($r = .710$). Additionally, "I raise my hand in class" ($r = .341$) had the weakest influence on the variable.

The fourth factor consists of four items. It is labelled Cognitive (SECO). The reliability was .562. These have high load factors ranging from .493 to .645. Cognitive encompassed aspects that encompassed the student thinking about the class when he/she is not in school. Additionally, it took into account how well the student enjoys the class, helps his/her fellow classmate, and wants to learn the class' subject matter. Within cognitive, the item that had the most influence on student engagement was "I think about this class when I am not in school" ($r = .654$). Conversely, "I want to learn the class' subject matter" ($r = .493$) had the weakest influence on the variable.

Social Climate

The factorial analysis procedure was used to analyze the validity of Social Climate. In the analysis of the correlation matrix, it was found that the 19 statements have a positive correlation coefficient greater than .3. Item 16 (I find it difficult to participate in this class) was removed for not showing adequate theoretical adjustability and reliability. Regarding the sample adequacy measure KMO, a value close to the unit (KMO = .836) was found. For the Bartlett's Sphericity test, it was found that the results (X^2 = 1,098.558 df =171, p = .000) are significant. This means that there is good correlation between the items in the construct.

For the extraction statistics by main components, it was found that for the commonality values (Com_{min} = .446; Com_{max} = .752). In relation to the total variance explained, an exploratory analysis was carried out with three factors, explaining 62.567% of the total variance, this value being greater than 50% established as a criterion. Regarding the Rotated Component Matrix, the Varimax method was used. Table 8 presents information comparing the relative saturations or factor loadings of each indicator for the four factors of social climate.

The first factor consists of eight items and it is labelled, Teacher Relations (CLTR). The reliability was .890. These have high load factors ranging from .629 to .823. Teacher relations encompass how the teacher treats the students, cares about them, and listens to them when they have a problem. It also incorporates if the teacher lets the students know if they are doing a good job. Also, if the teacher takes a personal interest in the student and if students feel comfortable telling the students if they don't understand material. Within the Social Climate, the item that had the most influence on Teacher Relation was "the teacher treats students with respect" (r = .823). Additionally,

"the teacher takes a personal interest in me" (r = .629) had the weakest influence on the variable.

The second factor consists of four items and it is labelled, Student Relations (CLSR). The reliability was .862. These have high load factors ranging from .699 to .832. Student Relations encompass how the students get along with one another and are friendly towards each other. Additionally, the students treat each other with respect and care about each other. Within the Student Relations, the item that had the most influence on Social Climate was, "the students in class get along with one another" (r = .832). Additionally, "the students in class really care about each other" (r = .681) had the weakest influence on the variable.

Table 8

Rotated Matrix for Items in Social Climate

	Component			
	1	2	3	4
CLTR3 The teacher treats students with respect.	**,823**	,241	-,020	-,039
CLTR4 The teacher listens to you when you have a problem.	**,814**	,119	,144	-,039
CLTR1 The teacher cares about the students.	**,805**	,062	,131	,099
CLTR6 The teacher helps me with my work.	**,769**	,051	,244	,147
CLTR5 The teacher lets you know when you are doing a good job.	**,722**	-,052	,252	,165
CLTR7 I feel comfortable telling the teacher when I don't understand.	**,707**	,094	,065	,203
CLTR2 Adults who work in this school care about the students.	**,662**	,364	-,075	-,010
CLTR8 The teacher takes a personal interest in me.	**,629**	-,040	,114	,237
CLSR10 The students in class get along with one another.	,190	**,832**	,023	,067
CLSR11 The students treat each other with respect.	,075	**,830**	,237	-,027
CLSR12 The students are friendly towards most other students.	,003	**,796**	,156	,055
CLSR9 The students in class really care about each other.	,170	**,699**	,198	,126
CLCO15 When I work with other students in this class there is teamwork.	,091	,306	**,767**	,048
CLCO14 I learn from other students in this class.	,129	,173	**,744**	-,056
CLCO13 I cooperate with others when doing assignments.	,013	,514	**,567**	,020
CLCO20 What I learn in class is relevant to my future.	,389	-,029	**,499**	,212
CLCO19 I discuss with others how to go about solving problems	,363	,130	**,497**	,417
CLIN18 I am asked to explain how I solve problems.	,201	-,039	-,026	**,778**
CLIN17 I give my opinions during discussions in this class.	,076	,190	,106	**,753**

The third factor consists of five items and it is labelled, Collaboration (CLCO). The reliability was .723. These have high load factors ranging from .497 to .767. Collaboration encompasses how the students join in teamwork, how they cooperate when doing assignments and discuss how to solve problems. The students also incorporate what they learn in class with their future. Within Social Climate, the item that had the most influence on Collaboration was, "when I work with other students in class there is teamwork" (r = .767). Additionally, "I discuss with others how to go about solving problems" (r = .497) had the weakest influence on the variable.

The fourth factor consists of two items, and it is labelled, Involvement (CLIN). The reliability was .419. These have high load factors ranging from .753 to .778. Involvement encompasses when a student is asked to explain they solve problems and they give their opinions during class discussions. Within Social Climate, the item that had the most influence on Involvement was, "I am asked to explain how I solve problems" (r = .778). Additionally, "I give my opinions during discussions in this class" (r = .753) had the weakest influence on the variable.

Descriptive of the Constructs

This section shows the analysis of each of the constructions in general, as well as the behavior of its dimensions and indicators. Appendix D shows the support tables.

Social Engagement: Pre-test

The following Table 9 lists the descriptive of items in Social Engagement of mixed students. The items in emotional and skill, had the highest values in the mean, principally in getting a good grades and confidence in class. Items in emotional and

confidence such as I think about this class when not in school and I am not doing well in this class had the lowest mean.

When looking at the pre-test, Figure 1 shows that the overall mean for social engagement was 3.8 with a standard deviation of .592 and a skewness of -1.11. This skewness shows that the majority of the responses fell just above the central value of 3.00 indicating that most survey participants were leaning towards a high level of social engagement. Additionally, the distribution had a Kurtosis value of 1.718 indicating that most the responses were clustered around the same values causing the distribution curve to be narrow and steep.

Table 9

Mean and Standard Deviation for Items of Social Engagement: Pre-test

	M	*SD*
SEEM20 I am getting a good grade in class.	4.49	0.936
SEEM2 I am confident that I can learn and do well in this class.	4.36	1.069
SESK4 I put forth effort in this class.	4.34	0.968
SESK10 I listen carefully in class.	4.23	0.767
SESK9 I take good notes in class.	4.11	1.228
SEEM1 I am doing well on tests in class.	4.06	1.143
SESK11 I come to class prepared everyday.	3.99	1.019
SESK8 I am organized.	3.92	1.178
SECO13 I want to learn the class subject matter.	3.90	1.297
SEPA14 I raise my hand in class.	3.89	1.405
SECO16 I enjoy this class.	3.87	1.381
SEPA15 I ask questions when I don't understand the teacher.	3.83	1.371
SEPA17 I participate actively in small group discussions.	3.60	1.259
SESK3 I make sure to study on a regular basis.	3.58	1.287
SECO19 I help my fellow classmates.	3.58	1.408
SEPA7 I look over the notes between classes to make sure I understand the material.	3.54	1.374
SESK6 I stay up on the readings in class.	3.53	1.288
SEPA18 I go to the teacher to review assignments or tests.	3.07	1.330
SECO12 I think about this class when I am not in school.	2.58	1.533
SEEM21 I am not doing well in this class.	1.69	1.188
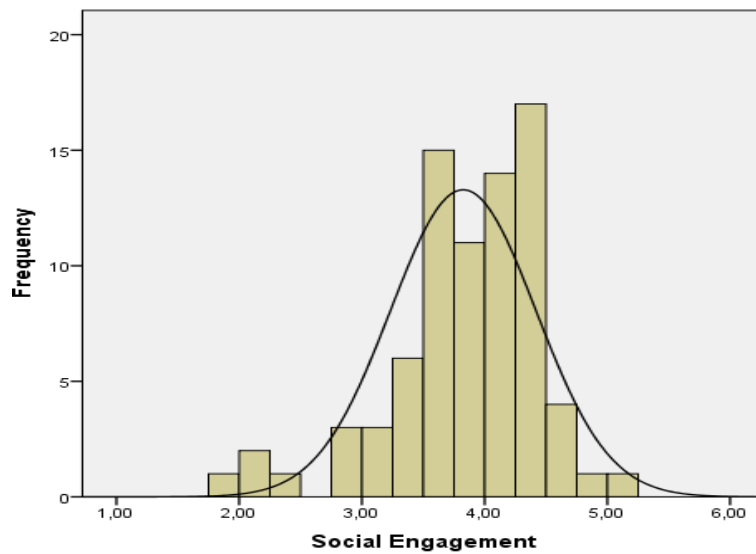
Figure 1. Histogram of Social Engagement Pre-test.

Social Engagement: Post-test

Table 10 shows the descriptive elements of social engagement of a single gender. The items in emotional and skills had the highest mean values mainly, "I listen carefully in class" and "I am doing well on tests in class". The lowest mean was also in the skill, "I am not doing well in this class".

On the other hand, in the post-test Figure 2 shows that the overall mean for social engagement was 3.9 with a standard deviation of .584 and a skewness of -1.65. This skewness shows that the majority of the responses fell around the central value of 3.00 indicating that most survey participants had a neutral response towards social engagement. Additionally, the distribution had a Kurtosis value of -.907 indicating that most the responses were not clustered around the same values causing the distribution curve to be wider spread.

Table 10

Mean and Standard Deviation for Items of Social Engagement: Post-test

	M	SD
SEEM1 I am doing well on tests in class.	4.45	0.730
SEEM2 I am confident that I can learn and do well in this class.	4.38	0.934
SESK3 I make sure to study on a regular basis.	3.48	1.312
SESK4 I put forth effort in this class.	4.27	0.963
SESK6 I stay up on the readings in class.	3.66	1.340
SEPA7 I look over the notes between classes to make sure I understand the material.	3.43	1.341
SESK8 I am organized.	3.91	1.178
SESK9 I take good notes in class.	4.09	1.065
SESK10 I listen carefully in class.	4.48	0.731
SESK11 I come to class prepared everyday.	4.03	1.118
SECO12 I think about this class when I am not in school.	2.69	1.610
SECO13 I want to learn the class subject matter.	3.70	1.315
SEPA14 I raise my hand in class.	3.95	1.250
SEPA15 I ask questions when I don't understand the teacher.	3.89	1.312
SECO16 I enjoy this class.	3.86	1.332
SEPA17 I participate actively in small group discussions.	3.81	1.246
SEPA18 I go to the teacher to review assignments or tests.	3.43	1.388
SECO19 I help my fellow classmates.	3.70	1.064
SEEM20 I am getting a good grade in class.	4.34	1.050
SEEM21 I am not doing well in this class.	1.89	1.404
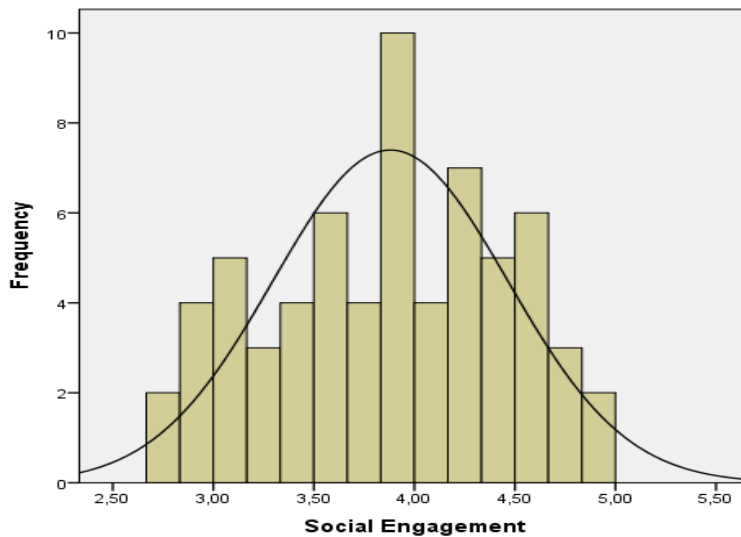
Figure 2. Histogram of Social Engagement Post-test.

Social Competence Pre-test

Table 11 shows descriptive elements of social competence. Articles on social motivation had the highest mean values, I prefer to spend time with people. The lowest average was in social adaptability: I get anxious in class.

Table 11

Mean and Standard Deviation for Items of Social Competence: Pre-test

	M	*SD*
SCSM1 I prefer to spend time alone in class.	2.77	1.386
SCSM2 I enjoy spending time with people in class.	4.01	1.092
SCSM3 I avoid talking to people in class.	2.77	1.268
SCSM4 I stay in the background in social group situations.	2.81	1.411
SCSA6 I get anxious in class.	2.55	1.500
SCSM7 I have a lot of friends in class.	3.58	1.490
SCSM8 I am popular with my classmates.	3.09	1.495
SCCO9 I do things with others in class.	3.95	1.165
SCSC10 I am easy to like.	3.45	1.234
SCCO11 I am comfortable voicing my opinion in this class.	3.59	1.446
SCSM12 It is easy for me to make friends.	3.69	1.417
SCSM13 I am important to my classmates.	3.15	1.290
SCCO14 I am not able to verbalize my thoughts in class.	2.47	1.400
SCSC15 I am sure of myself in class.	3.81	1.094
SCSA16 I misread social cues in class.	2.76	1.291
SCCO17 I look people in the eye when speaking to them in class.	3.51	1.348
SCSC18 I feel good about the way I act.	3.83	1.178
SCSC19 I am a good person.	3.92	1.275

When looking at the pre-test, Figure 3 shows that the overall mean for social competence was 3.52 with a standard deviation of .682 and a skewness of 0. 560. This skewness shows that the majority of the responses fell just above the central value of 3.00 indicating that most survey participants were leaning towards a high level of social competence. Additionally, the distribution had a Kurtosis value of -.063 indicating that most the responses were clustered around the same values causing the distribution

curve to be narrow and steep.
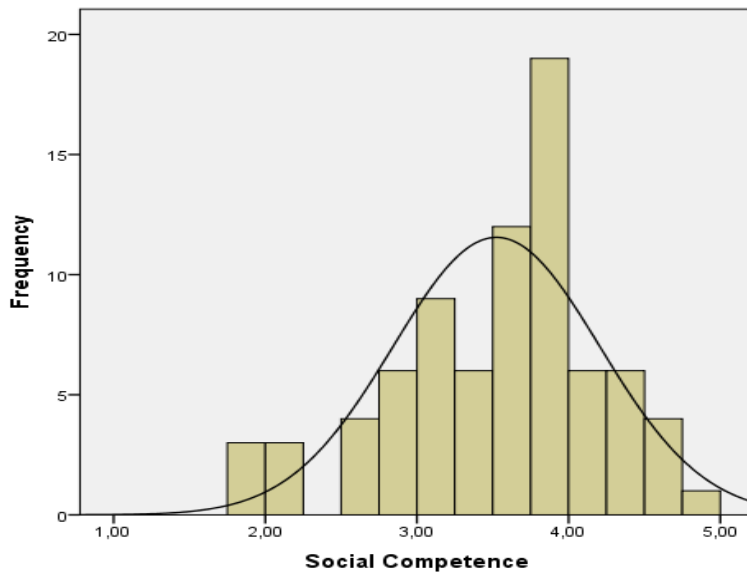
Figure 3. Histogram of Social Competence Pre-test.

Social Competence Post-test

Table 12 presents the descriptive elements of social competence in the post-test. The items in self-confidence had the highest values in the mean, I am a good person. The lowest average was cooperative; I cannot verbalize my thoughts in class.

On the other hand, in the post-test Figure 4 shows that the overall mean for social competence was 3.7 with a standard deviation of .691 and a skewness of .560. This skewness shows that the majority of the responses fell around the central value of 3.00 indicating that most survey participants had a neutral response towards social competence. Additionally, the distribution had a Kurtosis value of -.185 indicating that most the responses were not clustered around the same values causing the distribution curve to be wider spread.

Table 12

Mean and Standard Deviation for Items of Social Competence: Post-test

	M	SD
SCSM1 I prefer to spend time alone in class.	2.49	1.501
SCSM2 I enjoy spending time with people in class.	4.03	.968
SCSM3 I avoid talking to people in class.	2.44	1.402
SCSM4 I stay in the background in social group situations.	2.74	1.428
SCSA6 I get anxious in class.	2.43	1.510
SCSM7 I have a lot of friends in class.	3.67	1.481
SCSM8 I am popular with my classmates.	2.98	1.386
SCCO9 I do things with others in class.	4.11	1.002
SCSC10 I am easy to like.	3.66	1.079
SCCO11 I am comfortable voicing my opinion in this class.	3.60	1.397
SCSM12 It is easy for me to make friends.	3.98	1.123
SCSM13 I am important to my classmates.	3.18	1.195
SCCO14 I am not able to verbalize my thoughts in class.	2.39	1.285
SCSC15 I am sure of myself in class.	3.73	1.221
SCSA16 I misread social cues in class.	2.55	1.272
SCCO17 I look people in the eye when speaking to them in class.	3.91	1.259
SCSC18 I feel good about the way I act.	4.00	1.107
SCSC19 I am a good person.	4.20	1.019
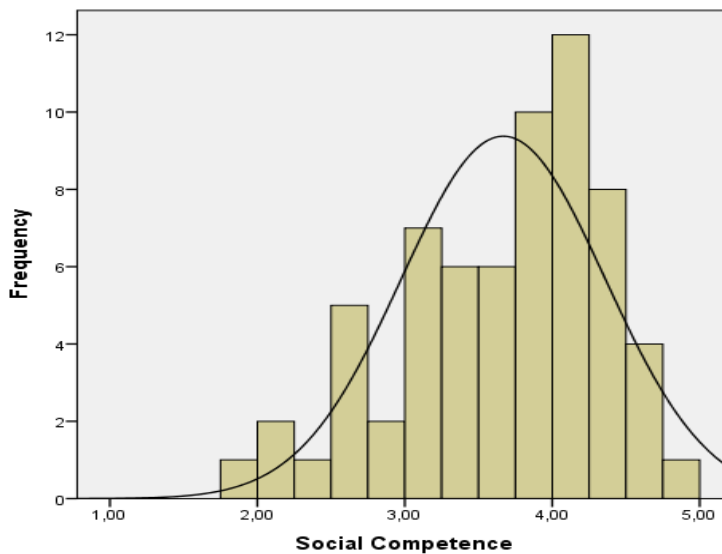
Figure 4. Histogram of Social Competence Post-test.

Social Climate Pre-test

Table 13 shows the descriptive elements of the social climate. The item in relation to the teacher had the highest mean values, "The teacher treats students with respect." The lowest mean was relative to the student: "Students treat each other with respect."

Table 13

Mean and Standard Deviation for Items of Social Climate: Pre-test

	M	SD
SCLTR1 The teacher cares about the students.	3.97	1.298
SCLTR2 Adults who work in this school care about the students.	3.96	1.192
SCLTR3 The teacher treats students with respect.	3.99	1.266
SCLTR4 The teacher listens to you when you have a problem.	3.95	1.413
SCLTR5 The teacher lets you know when you are doing a good job.	3.97	1.348
SCLTR6 The teacher helps me with my work.	3.77	1.289
SCLTR7 I feel comfortable telling the teacher when I don't understand.	3.67	1.420
SCLTR8 The teacher takes a personal interest in me.	3.19	1.387
SCLSR9 The students in class really care about each other.	2.95	1.404
SCLSR10 The students in class get along with one another.	2.93	1.370
SCLSR11 The students treat each other with respect.	2.90	1.257
SCISR12 The students are friendly towards most other students.	3.28	1.318
SCLCO13 I cooperate with others when doing assignments.	3.82	1.277
SCLCO14 I learn from other students in this class.	3.39	1.470
SCLCO15 When I work with other students in this class there is teamwork.	3.40	1.498
SCLIN17 I give my opinions during discussions in this class.	3.54	1.483
SCLIN18 I am asked to explain how I solve problems.	3.71	1.341
SCLCO19 I discuss with others how to go about solving problems	3.09	1.416
SCLCO20 What I learn in class is relevant to my future.	3.66	1.386

When looking at the pre-test, Figure 5 shows that the overall mean for social climate was 3.54 with a standard deviation of .771 and a skewness of -.816 this skewness shows that the majority of the responses fell just above the central value of 3.00 indicating that most survey participants were leaning towards a high level of social

climate. Additionally, the distribution had a Kurtosis value of .795 indicating that most the responses were clustered around the same values causing the distribution curve to be narrow and steep.

<div align="center">Social Climate Post-test</div>

Table 14 shows the descriptive elements of the social climate in the post-test. Cooperating items had the highest mean values, "cooperate with others when doing assignments." The lowest mean was relative to the student, "students treat each other with respect."
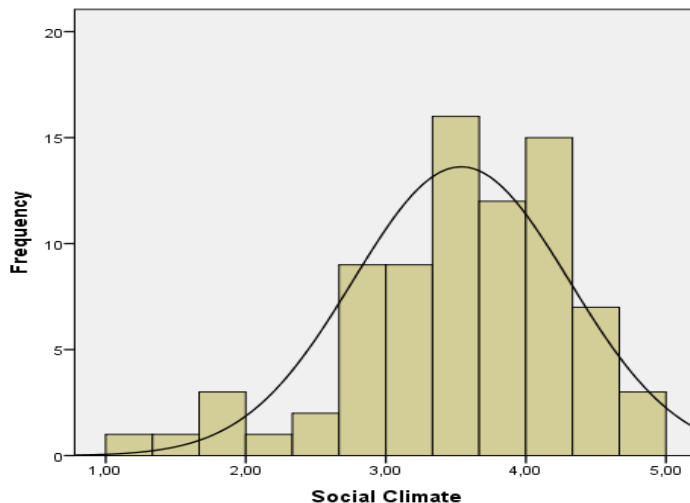
Figure 5. Histogram of Social Climate Pre-test.

On the other hand, in the post-test Figure 6 shows that the overall mean for social climate was 3.52 with a standard deviation of .715 and a skewness of -.596. This skewness shows that the majority of the responses fell around the central value of 3.00 indicating that most survey participants had a neutral response towards social climate. Additionally, the distribution had a Kurtosis value of .311 indicating that most of the

responses were not clustered around the same values causing the distribution curve to be wider spread.

Table 15 shows the descriptions of each factor by the combined mean and standard deviation for the pretest and posttest. It can be seen that in all the factors of social competence there is an improvement of the mean and the same occurs for social engagement, however the differences are smaller. But for social climate if a decrease in the average is observed, although they are not as important.

Table 14

Mean and Standard Deviation for Items of Social Climate: Post-test

	M	SD
SCLTR1 The teacher cares about the students.	3.83	1.420
SCLTR2 Adults who work in this school care about the students.	3.81	1.366
SCLTR3 The teacher treats students with respect.	3.89	1.311
SCLTR4 The teacher listens to you when you have a problem.	3.89	1.404
SCLTR5 The teacher lets you know when you are doing a good job.	3.91	1.343
SCLTR6 The teacher helps me with my work.	3.77	1.294
SCLTR7 I feel comfortable telling the teacher when I don't understand.	3.50	1.447
SCLTR8 The teacher takes a personal interest in me.	3.25	1.403
SCLSR9 The students in class really care about each other.	2.90	1.160
SCLSR10 The students in class get along with one another.	2.98	1.281
SCLSR11 The students treat each other with respect.	2.88	1.293
SCLSR12 The students are friendly towards most other students.	2.97	1.319
SCLCO13 I cooperate with others when doing assignments.	3.94	1.130
SCLCO14 I learn from other students in this class.	3.46	1.288
SCLCO15 When I work with other students in this class there is teamwork.	3.88	1.215
SCLIN17 I give my opinions during discussions in this class.	3.32	1.542
SCLIN18 I am asked to explain how I solve problems.	3.44	1.412
SCLCO19 I discuss with others how to go about solving problems	3.47	1.284
SCLCO20 What I learn in class is relevant to my future.	3.83	1.294
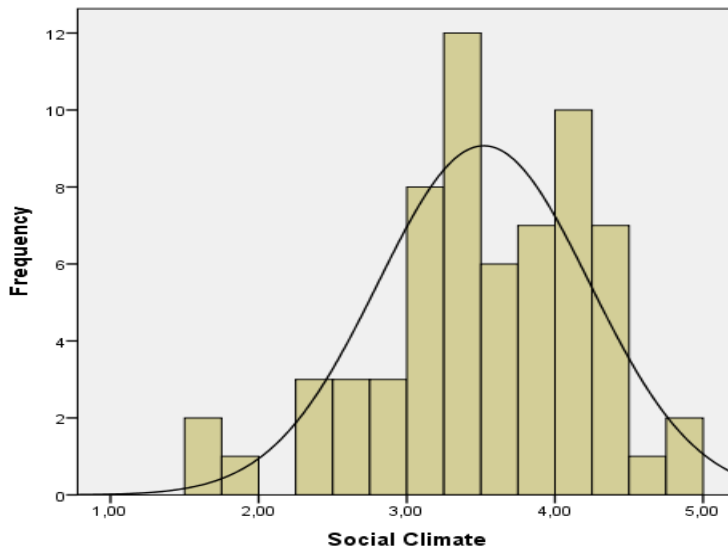
Figure 6. Histogram of Social Climate Post-test.

Hypothesis Test

This section presents the statistical analysis to test the hypotheses raised.

H_{o1}: Social competence, social engagement and social climate are not different when students are in mixed groups or separate groups, according to gender, in Seventh-day Adventist schools at the Northeast Conference.

The MANOVA test with a one factor shows that there is not enough evidence to reject the null hypothesis, since Wilks' lambda is not significant (Wilks' Lambda = .984, p = .509). This means that there is no significant difference in Social Competence ($F_{(1)}$ = 1.567, p = .213), Social Engagement ($F_{(1)}$ = .315, p = .576) or Social climate ($F_{(1)}$ = .019, p = .890), depending on the class in mixed or separate groups. It is therefore concluded that social competence, social engagement and social climate are not different when students are in mixed groups or separate groups, according to gender, in Seventh-day Adventist schools in the Northeastern Conference (see Appendix E).

Table 15

Descriptive of Factors and Constructs in Pre-test and Post-test

			M	*SD*
Social Competence	Social Motivation	1 Pre-test	3.3967	0.91623
		2 Post-test	3.5168	0.90250
	Social Adaptability	1 Pre-test	3.3291	1.07383
		2 Post-test	3.5078	1.07457
	Collaboration	1 Pre-test	3.6392	0.91557
		2 Post-test	3.8128	0.89086
	Self Confidence	1 Pre-test	3.7405	0.82290
		2 Post-test	3.8936	0.68315
	Social Competence	1 Pre-test	3.5241	0.68197
		2 Post-test	3.6679	0.69140
Social Engagement	Emotional	1 Pre-test	4.2943	0.81506
		2 Post-test	4.3167	0.68643
	Skills	1 Pre-test	3.9422	0.64047
		2 Post-test	3.9861	0.65132
	Cognitive	1 Pre-test	3.4831	0.89806
		2 Post-test	3.4833	0.90093
	Participation	1 Pre-test	3.5747	0.85922
		2 Post-test	3.7185	0.96029
	Student Engagement	1 Pre-test	3.8252	0.59287
		2 Post-test	3.8805	0.58426
Social Climate	Teacher Relation	1 Pre-test	3.8094	0.98783
		2 Post-test	3.7222	1.00109
	Student Relation	1 Pre-test	3.0274	1.09679
		2 Post-test	2.9346	1.12437
	Collaboration	1 Pre-test	3.4753	0.97996
		2 Post-test	3.7067	0.81877
	Involvement	1 Pre-test	3.6266	1.15600
		2 Post-test	3.3769	1.15931
	Social Climate	1 Pre-test	3.5375	0.77113
		2 Post-test	3.5201	0.71463

H_{o2}: Social competence and social climate are not predictors of social engagement when students are mixed according to gender.

The multiple linear regression analysis provides enough evidence to reject the null hypothesis ($F_{(1, 77)} = 26.044$, $p = .000$). With the model, 24% of the total variance is explained, where the only significant predictor is the Social Climate ($\beta = .503$, $p = .000$).

The linear regression model was executed using the factors of the independent variables as predictors. In this case the model was also significant ($F_{(3, 75)}$ = 13.563, p = .000), with an explained variance of 33%. The significant predictors turned out to be: Collaboration (β = .261, p = .019) and Teacher relation (β = .215, p = .048), both of the social climate, and self-confidence (β = .361, p = .000) of the social competence (see Appendix E).

As the last analysis to understand the relationship between the variables, each of the social engagement factors were considered as criteria. The results are shown in Table 16. It can be seen that the most explained factor is the cognitive one. The most common predictors are: social motivation, self-confidence and collaboration, appearing a couple of times each.

H_{o3}: Social competence and social climate are not predictors of social engagement when students are separated according to gender.

Table16

Multiple Linear Regression for Social Engagement Factors in Mixed Group

Criterion variable	Significance	R^2	Predictors
Emotional	$F_{(3, 75)}$ = 10.311, p = .000	.264	Social Motivation (β = .269, p = 014)
			Self Confidence (β = .273, p = 011)
			Teacher Relation (β = .236, p = 020)
Skills	$F_{(1, 77)}$ = 14.742, p = .000	.150	Self Confidence (β = .401, p = 000)
Cognitive	$F_{(3, 75)}$ = 15,728, p = .000	.362	Collaboration (β = .443, p = 000)
			Social Motivation (β = .340, p = 001)
			Social Adaptability (β = -.216, p = 028)
Participation	$F_{(1, 77)}$ = 16.199, p = .000	.163	Collaboration (β = .417, p = 000)

The multiple linear regression analysis provides enough evidence to reject the null hypothesis ($F_{(1, 63)}$ = 74.825, p = .000). With the model, 54% of the total variance is explained, where the only significant predictor is the Social Climate (β = .737, p = .000).

The linear regression model was executed using the factors of the independent variables as predictors. In this case the model was also significant ($F_{(4, 60)}$ = 30.401, p = .000), with an explained variance of 65%. The significant predictors turned out to be: Collaboration (β = .301, p = .001), Involvement (β = .251, p = .005) and teacher relation (β = .391, p = .000), all of the social climate, and self confidence (β = .205, p = .011) of the social competence.

The final analysis to understand the relationship between the variables, each of the social engagement factors were considered as criteria. The results are shown in Table 17. It can be seen that the most explained factor is participation. The most common predictors are: teacher relation, appearing three times, involvement and collaboration, appearing a couple of times each.

Table 17

Multiple Linear Regression for Social Engagement Factors in Separated Group

Criterion variable	Significance	R^2	Predictors
Emotional	$F_{(1, 63)}$ = 17.570, p = .000	.264	Involvement (β = .467, p = 000)
Skills	$F_{(2, 62)}$ = 11.194, p = .000	.242	Collaboration (β = .341, p = 007)
			Teacher Relation (β = .262, p = 036)
Cognitive	$F_{(2, 62)}$ = 21.485, p = .000	.390	Collaboration (β = .295, p = 009)
			Teacher Relation (β = .450, p = 000)
Participation	$F_{(3, 61)}$ = 27.688, p = .000	.556	Involvement (β = .324, p = 001)
			Social Motivation (β = .338, p = 000)
			Teacher Relation (β = .363, p = 000)

Other Analysis

Analysis was conducted to observe the possible associations between the main and demographic variables. A relationship was sought between the variables and with both age and years of attending that school. Age was found to correlate weakly with Social Adaptability ($r = .175$, $p = .039$) and with years of attending school, also weakly with: Social motivation ($r = .258$, $p = .004$), social competence ($r = .188$, $p = .038$) and emotional ($r = .215$, $p = .017$).

No differences were found regarding the degree of study. But by the subject, a difference was found in Social Motivation ($F_{(2, 141)} = 6,296$, $p = .002$), social competence ($F_{(2, 141)} = 4,177$, $p = .017$), student relation ($F_{(2,141)} = 7,282$, $p = .001$) and Skills ($F_{(2,141)} = 3,064$, $p = .050$) from Social Engagement (see Figure 7). The most important differences were between social studies and both Bible ($d = .85$) and Social Studies and GYM ($d = .59$) in the case of social motivation; in the case of social competence, the differences are moderately important between social studies and both the Bible ($d = .60$) and GYM ($d = .58$). Regarding student relation, the relationship is important between Social Studies and GYM ($d = .83$) and moderately important between social studies and Bible ($d = .57$). Lastly, in student engagement skills, the differences are moderately important between the Bible and the GYM ($d = .59$). In the case of the school the results are similar, since the schools are associated with the subjects.

Finally, regarding gender, a difference was found in teacher relation ($t_{(140.37)} = 2,031$, $p = .044$), in such a way that women ($M = 4.0$, $SD = 0.825$) show a higher mean than men ($M = 3.6$, $SD = 1.091$), although the effect size is low ($d = .34$).

The teachers that participated in the research by contributing their assessment of the students in the single gendered environment. The following are excerpts from

the teacher feedback form (Appendix A). When asked if the students were able to fre-

quently engage in class, all responded with the highest rating of True. When asked if

the students engaged more with their peers in this setting, two responded True, one

responded not sure and one responded sometimes true. When asked if the students

gained comradery in class, three responded with the highest rating -True. Finally, when

asked if the students seemed more at ease participating with their peers in this envi-

ronment, three responded with True, and one responded with Sometimes True. For

advantages with this type of setting responses were "less arguments", "girls seemed

more settled", "students more engaged and more involved", "boys more engaged and

more lively and expressive discussions", "students more comfortable and reached

goals faster". For disadvantages, "not having another point of view", and "may not work

for every type of lesson".
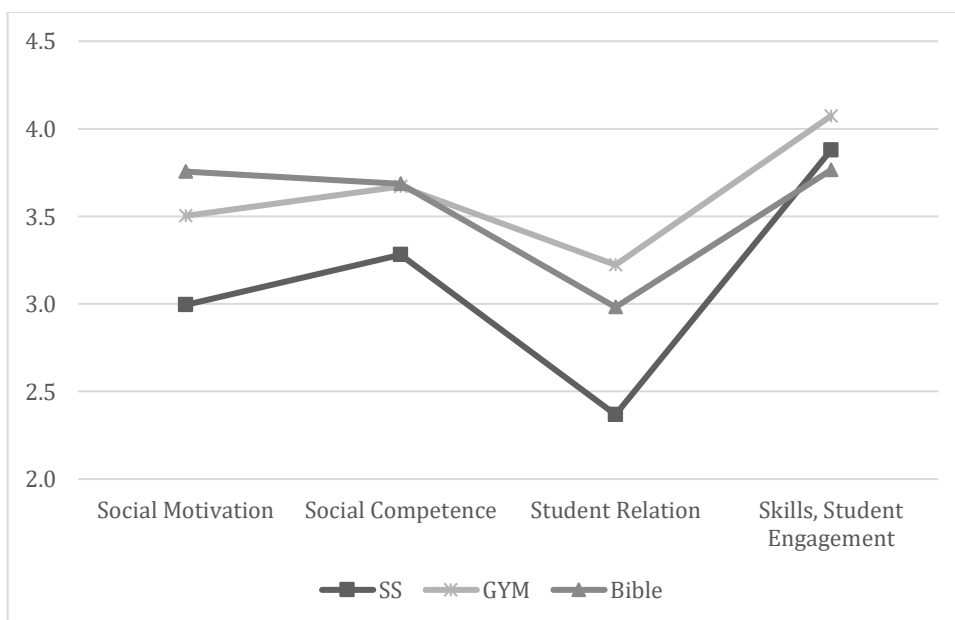
Figure 7. Profile of Means for Main Variables According to the Subject.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSSIONS
AND RECOMMENDATIONS

Summary

As stated previously, the purpose of this study was to explore the relationship between social competency, social climate, and social engagement of middle school students. In their adolescent years, hormones, peer pressure, and physical changes exacerbate the situation of participation. Students begin to feel less confident in themselves thus stifling or inhibiting their participation patterns. Gender based learning has become an accepted reality and has had a profound implication on how classrooms are designed, built and utilized from kindergarten to college (Goebel, 2010). Kommer (2006) suggests that students should "at some time have an opportunity to work in gender matched activities. They should also learn to function in a typical gender mismatched classroom. This allows students to be outside their comfort zone which will help with their less strong abilities.

The research questioned if we have been utilizing the differences among gender learning styles, which can influence competency and engagement. Have we assessed our current strategies and classroom models to see if they are meeting student's needs? The study sought answers to the question, what is the effect of social competence and social climate on engagement in mixed and single gendered middle school students?

Social Competence is described as the combinations of those cognitive, motivational, moral, and social skills available to a student, that demonstrate mastery through appropriate actions, demands, tasks problems and goals (Monnier, 2015) This includes the ability to create and maintain interactions with peers. For this research the independent variables were social motivation, social adaptability, collaboration, and self-confidence. The aim was to determine which factors were most evident or important in each group of students.

Engagement is defined as a process involving preparation, contribution, to discussion, group skills, communication skills, and attendance (James, 2016). The dependent variables in this research were cognitive, emotional skills and participation. The aim again is to determine which factors were most evident or important in each group of students.

Social Climate is defined as the learning environment where the psychological, sociological and physical aspects of a classroom and the interactions that occur between teachers and students in the instructional context in which student learning takes place (Khine, et al., 2017). The independent variables were teacher relation, student relation, collaboration, and involvement. The aim again was to be able to determine which factors were most evident or important in each group of students.

The method of research was a quantitative investigation design that utilized a quasi-experimental type, because the students were not selected randomly (Jacobs, Lamb, & Philipp, 2010). A mixed group was administered a pretest for engagement, competence and social climate. The group was separated by males and females, during two to three weeks. A post-test was administered for engagement, competence, and social climate.

The Social Engagement Competency Scale was the instrument used to observe the changes in the concepts of competence, engagement and social climate within the gender groups. The survey explored age, years of attendance in school, subject, gender, and grade. The Pre and Post Survey was manually distributed to the 79 students that were present on the first day. On the second visit, the post-survey instrument was distributed to respondents in each school for a total of 65 students, 14 from the previous visit were absent. Due to the identity of the students being anonymous, the data of the absent students was not identified. The Instruments were distributed to middle school students of three Seventh-day Adventist schools in the Northeastern Conference.

For the first hypothesis, social competence, social engagement and social climate are different when students are in mixed groups or separate groups, according to gender, the MANOVA test with a one factor shows that there is not enough evidence to reject the null hypothesis, since Wilks' lambda is not significant (Wilks' Lambda = .984, p = .509). This means that there is no significant difference in social competence, social engagement or social climate, depending on the class in mixed or separate groups.

For the second hypothesis, social competence and social climate are predictors of social engagement when students are in mixed groups, the multiple linear regression analysis provides enough evidence to reject the null hypothesis ($F_{(1, 77)}$ = 26.044, p = .000). With the model, 24% of the total variance is explained, where the only significant predictor is the Social Climate. The linear regression model was executed using the factors of the independent variables as predictors. In this case the model was also significant ($F_{(3, 75)}$ = 13.563, p = .000), with an explained variance of 33%. As the last

analysis to understand the relationship between the variables, each of the social engagement factors were considered as criteria. The most explained factor is the cognitive one.

For the third hypothesis, social competence and social climate are predictors of social engagement when students are separated according to gender, the multiple linear regression analysis provides enough evidence to reject the null hypothesis ($F_{(1, 63)}$ = 74.825, p = .000). With the model, 54% of the total variance is explained, where the only significant predictor is the Social Climate. The linear regression model was executed using the factors of the independent variables as predictors. In this case the model was also significant ($F_{(4, 60)}$ = 30.401, p = .000), with an explained variance of 65%. Finally, to understand the relationship between the variables, each of the social engagement factors were considered as criteria. It was determined that the most explained factor is participation.

Discussion

The main aim of this research was to determine the engagement patterns of middle school students with respect to gender grouping or classes of students and how social climate and competence affected this dynamic. The data from this research conducted, when analyzing the mean between pre-test (students in mixed classes) and post-test (students separated by gender) of each construct and variable, suggests that there is no significant difference between the groups. Social competence, social engagement and social climate are not different when students are in mixed groups or

separate groups, according to gender, in Seventh-day Adventist schools at the North-east Conference. Both groups, mixed and separate genders described themselves as competent, engaged, and adjusted in each climate.

For the most part, both groups had a positive attitude with respect to the teachers, motivation, and participation in class. The data did not reveal significant differences in the engagement and competence of the students. Pahlke, Hyde, and Allison (2014) in a meta-analysis study determined that overall single gender school advantages over coeducational schools are minimal if any. Anecdotal information from the students of this study, conveyed that students enjoyed the climate of the single gender classes however, the results were still not significant. A weakness of this research may have been the length of the instrument or the maturity level of the respondents could have contributed to the contradiction of this outcome. Fredricks, et al. (2016), posits that when assessing engagement in self reports, there are "few valid and psychometrically sound measures of student engagement that incorporate a multidimensional construct" (p. 2).

As previously stated, the data was collected over a three-week period. The research can only speculate that if the study was longer in duration, then it might have produced different results. The students were in one class with single gendered student's in a school culture of mixed gendered classes. In order to fully identify the differences, the students may have needed to acclimate to a single gendered environment. Another weakness was that the sample size was small and perhaps not large enough to power the model or produce significant findings. The researcher was however, satisfied with the data gained from each environment because the findings may prove useful for future planning.

The classes in this study were multi-grade classes (6 to 8), with students of multiple ages. With regards to the demographics, there was a weak correlation with age and social adaptability. There was also a weak correlation of years in attendance with motivation, competency and social emotional skills. No statistically significant differences were revealed about the degree of subjects. The researcher did learn, however, the importance of using various subjects with which to compare data. The class that had a higher mean with regards to social motivation was Bible. In the next area, social competence, gym and Bible led with the same mean. For student relation and skills/engagement, gym had the highest mean. Future research on multi-grade classrooms and social climate and competency would be beneficial for knowledge to assist with programming of middle scholars.

Multiple regression of the variables was then employed to further analyze the data. For the second hypothesis, social competence and social climate are predictors of social engagement when students are mixed according to gender, the findings were significant. The aim was to determine if student competence and social climate are predictors of social engagement. The most common predictors of Social Engagement of students that are mixed are: social motivation, self-confidence and collaboration. The model was significant, with an explained variance of 33%. This data reveals that there is a unique amount of variance in the dependent variable social engagement. The significant predictors turned out to be: collaboration, teacher relation, both of the social climate, and self-confidence variable. The most significant predictor was collaboration and the most explained factor was cognitive. It is evident that students are engaging in mixed gender classes, however the factors that motivate them to do so, or predict engagement, are different than in other environments.

The following were the survey items that were most important to students with regards to engagement in mixed gender classes. The student "raised his/her hand in class, they enjoyed the class, helped his/her fellow classmate, and wanted to learn the class' subject matter". For collaboration, "working together and ease with which a student is able to verbalize thoughts and opinions in class was important". "The ability to make eye contact and also to do things with others in class was important". Similarly, Ryan and Patrick (2001) support this idea that social environment in a classroom is a necessity to motivation and engagement.

For the third hypothesis, social competence and social climate are predictors of social engagement when students are separated according to gender the model was also significant, with an explained variance of 65%. This data reveals that there is a unique amount of variance in the dependent variable social engagement. The significant predictors for students in same gender groups turned out to be: collaboration, involvement and teacher relation and self-confidence of the social competence. The best predictor was teacher relation and the most explained factor was participation.

The items that rated higher when they were separate were: "listening carefully, being confident I can do well, and putting forth effort". For competence, students felt that "they were good people, they enjoyed spending time with others in class, and I do things with others". For social climate; "students felt they cooperated well with others, they believed the teacher treated them with respect, and cared about them". The Journal of Psychology and Psychological Therapy states, that "social competence has been widely studied and is now recognized as a key factor in fostering positive social interactions, acceptance from others and friendships. It has also been recognized as a variable that promotes academic success (Romera, et al., 2017).

Research revealed that amount of student engagement doubled when students were grouped by gender in class. Liem and Martin (2011) also found evidence that relationships with peers of the opposite sex have less of a positive connection with respect to school engagement and are not as strong as same gender classmates. Furthermore, quantitative and qualitative data from the teachers of mixed gender classes saw improved engagement and competency skills after single gender groupings.

Additionally, the demographic data regarding gender revealed that the mean was higher for girls ($M = 4.0$, $SD = 0.825$) as they relate with their teacher than boys ($M = 3.6$, $SD = 1.091$). Data revealed that girls related with their teacher slightly better than boys. This confers with Wills, et al. (2006) suggestion that a strong relationship between teachers and students is necessary for teachers to educate effectively. The research is in accordance with Fan (2011) that when teacher–student relationship which is supported by a caring teacher, it increases the student's self-perceived confidence in classroom learning. It was identified that a "supportive climate" and students feeling "secure" before they are able to "commit to more challenging and demanding work." An area that was not address was the predictors that lead to teacher student relationships. Future research on teacher gender as it effects the relationship of student engagement could provide useful insight.

Conclusions

Social competence, social engagement and social climate are not different when students are in mixed or in separate groups, according to gender, in Seventh-day Adventist schools at the Northeast Conference.

Social competence and social climate are predictors of social engagement when

students are mixed and separated according to gender. It was determined that the best predictor for student engagement of mixed students was collaboration, and the best predictor of students separated by gender was teacher relation.

Social engagement is best explained by social competence and social climate when working in separate groups according to gender.

Recommendations

The findings from the research have provided opportunities to identify the following recommendations for implementation of teaching resources in the educational system:

1. Encourage the use of gender grouping as an instructional strategy to promote involvement and teacher-student relationships.

2. Design professional developments on how to implement collaboration which leads to improved engagement in the classroom.

3. Foster an environment that focuses on positive interactions between teachers and adolescents to improve self-confidence which leads to academic competency.

For Future Research

This section presents recommendations for future studies:

1. A similar study could be conducted using a different and/or larger population to verify the validity of this study.

2. This study uses a quantitative approach; future research may consider an ethnographical approach in order to have a more thorough understanding of the relationships.

3. Future study could be conducted with the same variables but with different instruments.

APPENDIX A

INSTRUMENTAL BATTERY

Adolescent Engagement Competency Scale

This survey will assist in measuring the level of competence and engagement of students within their classroom social setting compared to that of single gendered classrooms.

Age:_____ Grade:_____

Subject:_____ Religion:_____

School:_____ Years attending this school:_____

Please circle: Male ☐ Female ☐

Please circle all items in the survey. Remember there are no right or wrong answers. Your responses are completely anonymous.

1 False	2 Mostly false	3 Not sure	4 Sometimes true	5 True

1	I prefer to spend time alone in class.	1	2	3	4	5
2	I enjoy spending time with people in class.	1	2	3	4	5
3	I avoid talking to people in class.	1	2	3	4	5
4	I stay in the background in social group situations.	1	2	3	4	5
5	I learn how to solve real life problems.	1	2	3	4	5
6	I get anxious in class.	1	2	3	4	5
7	I have a lot of friends in class.	1	2	3	4	5
8	I am popular with my classmates.	1	2	3	4	5
9	I do things with others in class.	1	2	3	4	5
10	I am easy to like.	1	2	3	4	5
11	I am comfortable voicing my opinion in this class.	1	2	3	4	5
12	It is easy for me to make friends.	1	2	3	4	5
13	I am important to my classmates.	1	2	3	4	5
14	I am not able to verbalize my thoughts in class.	1	2	3	4	5
15	I am sure of myself in class.	1	2	3	4	5
16	I misread social cues in class.	1	2	3	4	5
17	I look people in the eye when speaking to them in class.	1	2	3	4	5
18	I feel good about the way I act.	1	2	3	4	5
19	I am a good person.	1	2	3	4	5

20	I am doing well on tests in class.	1	2	3	4	5
21	I am confident that I can learn and do well in this class.	1	2	3	4	5
22	I make sure to study on a regular basis.	1	2	3	4	5
23	I put forth effort in this class.	1	2	3	4	5
24	I do all the homework problems.	1	2	3	4	5
25	I stay up on the readings in class.	1	2	3	4	5
26	I look over the notes between classes to make sure I understand the material.	1	2	3	4	5
27	I am organized.	1	2	3	4	5
28	I take good notes in class.	1	2	3	4	5
29	I listen carefully in class.	1	2	3	4	5
30	I come to class prepared every day.	1	2	3	4	5
31	I think about this class when I am not in school.	1	2	3	4	5
32	I want to learn the class subject matter.	1	2	3	4	5
33	I raise my hand in class.	1	2	3	4	5
34	I ask questions when I don't understand the teacher.	1	2	3	4	5
35	I enjoy this class.	1	2	3	4	5
36	I participate actively in small group discussions.	1	2	3	4	5
37	I go to the teacher to review assignments or tests.	1	2	3	4	5
38	I help my fellow classmates.	1	2	3	4	5
39	I am getting a good grade in class.	1	2	3	4	5
40	I am not doing well in this class.	1	2	3	4	5
41	The teacher cares about the students.	1	2	3	4	5
42	Adults who work in this school care about the students.	1	2	3	4	5
43	The teacher treats students with respect.	1	2	3	4	5
44	The teacher listens to you when you have a problem.	1	2	3	4	5
45	The teacher lets you know when you are doing a good job.	1	2	3	4	5
46	The teacher helps me with my work.	1	2	3	4	5
47	I feel comfortable telling the teacher when I don't understand.	1	2	3	4	5
48	The teacher takes a personal interest in me.	1	2	3	4	5
49	The students in class really care about each other.	1	2	3	4	5
50	The students in class get along with one another.	1	2	3	4	5
51	The students treat each other with respect.	1	2	3	4	5
52	The students are friendly towards most other students.	1	2	3	4	5
53	I cooperate with others when doing assignments.	1	2	3	4	5

54	I learn from other students in this class.	1	2	3	4	5
55	When I work with other students in this class there is team-work.	1	2	3	4	5
56	I find it difficult to participate in this class.	1	2	3	4	5
57	I give my opinions during discussions in this class.	1	2	3	4	5
58	I am asked to explain how I solve problems.	1	2	3	4	5
59	I discuss with others how to go about solving problems	1	2	3	4	5
60	What I learn in class is relevant to my future.	1	2	3	4	5

Adolescent Engagement Competence Scale -Teacher Feedback

Subject taught: _____   Years at this school:_____

Grade level of students:_____   School:_____

Please circle: Male   ☐ Female ☐

Please circle an answer for all of the items in the survey. Remember there are no right or wrong answers. Your responses are completely anonymous.

1 False	2 Mostly False	3 Not Sure	4 Sometimes True	5 True

1. Are the students able to seek your help outside of class?	1	2	3	4	5
2. Are students in your class encouraged to value other student's opinions?	1	2	3	4	5
3. Are students in your class encouraged to problem solve?	1	2	3	4	5
4. Do students feel comfortable questioning methods or goals of the class?	1	2	3	4	5
5. Are students in your class comfortable able asking for clarification about activities that are confusing?	1	2	3	4	5
6. Are students able to express concern about competing in activities?	1	2	3	4	5
7. Were the students able to frequently engage in class?	1	2	3	4	5
8. Did the students engage more with their same gender peers?	1	2	3	4	5
9. Did you see growth in the student's competency in this class?	1	2	3	4	5
10. Did the students seem to build comradery in this class?	1	2	3	4	5
11. Did the students seem more at ease participating with their peers?	1	2	3	4	5

Short answer

1. Please specify the advantages of having students work in groups separated by gender.

2. Please specify the disadvantages of having the students work in groups separated by gender.

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http://www.northeastern.org

August 24, 2019

Dear Educators:

This letter confirms and authorizes the verbal agreement at our last principals' meeting, concerning fellow employees as they seek permission to send surveys to schools within the Northeastern Conference.

In the Department of Education, we do our best to support our teachers as they ascend the ladder of academic prowess. As a result, we are requesting your assistance in completing surveys from various students as a part of their research project for their doctoral thesis.

Kimberly Hunt, whose research project focuses on Student Engagement, would like to have your school participate in this exercise. We do solicit your cooperation and implore your commitment to protect the rights of our students, by having permission from their parents before they become actively involved.

Thanks for your continued support. If you have any concerns or require additional information, please feel free to contact my office.

Yours in His service,

Viola Chapman
Superintendent of Schools

APPENDIX B

DEMOGRAPHIC DATA

Frequency Table

Pre/Post

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Pretest	79	54.9	54.9	54.9
	2 Post-test	65	45.1	45.1	100.0
	Total	144	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10	6	4.2	4.3	4.3
	11	30	20.8	21.4	25.7
	12	44	30.6	31.4	57.1
	13	48	33.3	34.3	91.4
	14	11	7.6	7.9	99.3
	15	1	.7	.7	100.0
	Total	140	97.2	100.0	
Missing	System	4	2.8		
Total		144	100.0		

Grade

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 6th	37	25.7	25.9	25.9
	2 7th	34	23.6	23.8	49.7
	3 8th	72	50.0	50.3	100.0
	Total	143	99.3	100.0	
Missing	System	1	.7		
Total		144	100.0		

Subject

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 SS	31	21.5	21.5	21.5
	2 GYM	81	56.3	56.3	77.8
	3 Bible	32	22.2	22.2	100.0
	Total	144	100.0	100.0	

School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 SBA	31	21.5	21.5	21.5
	2 WAS	49	34.0	34.0	55.6
	3 LIN	64	44.4	44.4	100.0
	Total	144	100.0	100.0	

Years in Attendance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	17	11.8	13.9	13.9
	2	23	16.0	18.9	32.8
	3	23	16.0	18.9	51.6
	4	3	2.1	2.5	54.1

		Frequency	Percent	Valid Percent	Cumulative Percent
	5	2	1.4	1.6	55.7
	6	10	6.9	8.2	63.9
	7	9	6.3	7.4	71.3
	8	11	7.6	9.0	80.3
	9	8	5.6	6.6	86.9
	10	7	4.9	5.7	92.6
	11	7	4.9	5.7	98.4
	12	2	1.4	1.6	100.0
	Total	122	84.7	100.0	
Missing	System	22	15.3		
Total		144	100.0		

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 Boy	79	54.9	55.2	55.2
	1 Girl	64	44.4	44.8	100.0
	Total	143	99.3	100.0	
Missing	System	1	.7		
Total		144	100.0		

APPENDIX C

VALIDITY AND RELIABILITY

Factor Analysis -Social Competence

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,837
Bartlett's Test of Sphericity	Approx. Chi-Square	694,651
	df	171
	Sig.	,000

Communalities

	Initial	Extraction
SCSM1 I prefer to spend time alone in class.	1,000	,617
SCSM2 I enjoy spending time with people in class.	1,000	,658
SCSM3 I avoid talking to people in class.	1,000	,516
SCSM4 I stay in the background in social group situations.	1,000	,474
SCSA5 I learn how to solve real life problems.	1,000	,665
SCSA6 I get anxious in class.	1,000	,550
SCSM7 I have a lot of friends in class.	1,000	,629
SCSM8 I am popular with my classmates.	1,000	,571
SCCO9 I do things with others in class.	1,000	,654
SCSW10 I am easy to like.	1,000	,572
SCCO11 I am comfortable voicing my opinion in this class.	1,000	,627
SCSM12 It is easy for me to make friends.	1,000	,653
SCSM13 I am important to my classmates.	1,000	,609
SCCO14 I am not able to verbalize my thoughts in class.	1,000	,526
SCSC15 I am sure of myself in class.	1,000	,653
SCSA16 I misread social cues in class.	1,000	,591
SCCO17 I look people in the eye when speaking to them in class.	1,000	,602
SCSC18 I feel good about the way I act.	1,000	,601
SCSW19 I am a good person.	1,000	,671

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,913	31,121	31,121	3,716	19,559	19,559
2	1,658	8,725	39,846	2,626	13,823	33,382
3	1,507	7,930	47,776	1,830	9,629	43,011
4	1,230	6,472	54,248	1,700	8,949	51,960
5	1,133	5,963	60,212	1,568	8,252	60,212
6	1,044	5,493	65,705			
7	,774	4,074	69,779			
8	,740	3,896	73,675			
16	,343	1,806	95,774			
17	,299	1,576	97,350			
18	,267	1,406	98,756			
19	,236	1,244	100,000			

Extraction Method: Principal Component Analysis.

Scree Plot
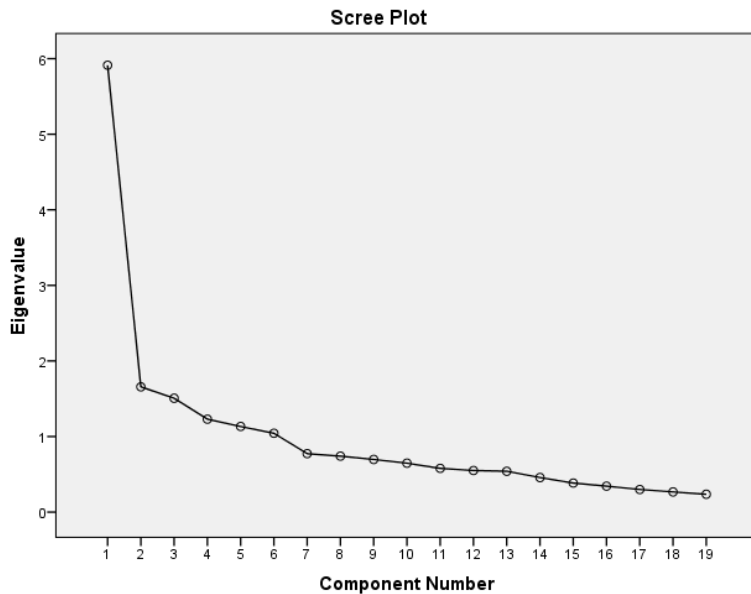
Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
SCSM13 I am important to my classmates.	**,737**	,196	,150		
SCSM1 I prefer to spend time alone in class.	**-,681**		,134	-,357	
SCSM8 I am popular with my classmates.	**,664**	,179		-,141	-,268
SCSM4 I stay in the background in social group situations.	**-,637**			-,223	
SCSM7 I have a lot of friends in class.	**,621**	,270	,401		
SCSM2 I enjoy spending time with people in class.	**,598**	,473		,259	
SCSM12 It is easy for me to make friends.	**,562**	,122	,459	,314	-,114
SCSM3 I avoid talking to people in class.	**-,433**	-,421		-,175	,346
SCCO9 I do things with others in class.	,268	**,703**	,251	,148	
SCCO14 I am not able to verbalize my thoughts in class.	-,203	**-,670**		,180	
SCCO11 I am comfortable voicing my opinion in this class.	,355	**,655**	-,110	,245	
SCCO17 I look people in the eye when speaking to them in class.		**,646**		,402	,114
SCSW19 I am a good person.	-,136	-,117	,768	,138	,170
SCSW10 I am easy to like.	,329	,165	,642		-,151
SCSC15 I am sure of myself in class.	,126	,131		,776	,128
SCSC18 I feel good about the way I act.	,199	,115	,263	,622	-,304
SCSA5 I learn how to solve real life problems.		,268	,228		,729
SCSA6 I get anxious in class.	-,433	-,118			**,583**
SCSA16 I misread social cues in class.		-,319	-,423		**,548**

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.[a]
a. Rotation converged in 8 iterations.

95

Reliability
Scale: SCSM

Reliability Statistics

Cronbach's Alpha	N of Items
,836	8

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SCSM2 I enjoy spending time with people in class.	,684	,807
SCSM7 I have a lot of friends in class.	,618	,810
SCSM8 I am popular with my classmates.	,544	,820
SCSM12 It is easy for me to make friends.	,613	,811
SCSM13 I am important to my classmates.	,570	,817
SCSM1R	,546	,820
SCSM3R	,514	,824
SCSM4R	,483	,829

Scale: SCSA
Reliability Statistics

Cronbach's Alpha	N of Items
,325	2

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SCSA6 I get anxious in class.	,196	.
SCSA16 I misread social cues in class.	,196	.

Scale: SCCO
Reliability Statistics

Cronbach's Alpha	N of Items
,654	4

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SCCO9 I do things with others in class.	,539	,531
SCCO11 I am comfortable voicing my opinion in this class.	,548	,498
SCCO17 I look people in the eye when speaking to them in class.	,365	,632
SCCO14R	,320	,664

Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,564
Bartlett's Test of Sphericity	Approx. Chi-Square	44,125
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
SCSC15 I am sure of myself in class.	1,000	,382
SCSC18 I feel good about the way I act.	1,000	,566
SCSC19 I am a good person.	1,000	,320
SCSC10 I am easy to like.	1,000	,412

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,680	41,990	41,990	1,680	41,990	41,990
2	,967	24,185	66,175			
3	,808	20,199	86,373			
4	,545	13,627	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
SCSC18 I feel good about the way I act.	,752
SCSC10 I am easy to like.	,642
SCSC15 I am sure of myself in class.	,618
SCSC19 I am a good person.	,565

Extraction Method: Principal Component Analysis.[a]
a. 1 components extracted.

Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
,535	4

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SCSC10 I am easy to like.	,316	,468
SCSC19 I am a good person.	,273	,504
SCSC18 I feel good about the way I act.	,414	,381
SCSC15 I am sure of myself in class.	,288	,491

Factor Analysis - SOCIAL CLIMATE

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,836
Bartlett's Test of Sphericity	Approx. Chi-Square	1.098,558
	df	171
	Sig.	,000

Communalities

	Initial	Extraction
CLTR1 The teacher cares about the students.	1,000	,679
CLTR2 Adults who work in this school care about the students.	1,000	,577
CLTR3 The teacher treats students with respect.	1,000	,737
CLTR4 The teacher listens to you when you have a problem.	1,000	,699
CLTR5 The teacher lets you know when you are doing a good job.	1,000	,615
CLTR6 The teacher helps me with my work.	1,000	,675
CLTR7 I feel comfortable telling the teacher when I don't understand.	1,000	,554
CLTR8 The teacher takes a personal interest in me.	1,000	,466
CLSR9 The students in class really care about each other.	1,000	,573
CLSR10 The students in class get along with one another.	1,000	,734
CLSR11 The students treat each other with respect.	1,000	,752
CLSR12 The students are friendly towards most other students.	1,000	,661
CLCO13 I cooperate with others when doing assignments.	1,000	,586
CLCO14 I learn from other students in this class.	1,000	,603
CLCO15 When I work with other students in this class there is teamwork.	1,000	,693
CLIN17 I give my opinions during discussions in this class.	1,000	,620
CLIN18 I am asked to explain how I solve problems.	1,000	,648
CLCO19 I discuss with others how to go about solving problems	1,000	,570
CLCO20 What I learn in class is relevant to my future.	1,000	,446

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,390	33,630	33,630	4,860	25,578	25,578
2	2,847	14,982	48,612	3,172	16,695	42,273
3	1,465	7,708	56,320	2,275	11,975	54,248
4	1,187	6,247	62,567	1,581	8,319	62,567
5	1,077	5,669	68,236			
6	,857	4,510	72,746			
7	,748	3,936	76,682			
8	,659	3,470	80,152			
9	,547	2,881	83,033			
14	,308	1,624	94,056			
15	,279	1,470	95,526			
16	,257	1,352	96,878			
17	,233	1,226	98,104			
18	,214	1,128	99,232			
19	,146	,768	100,000			

Scree Plot
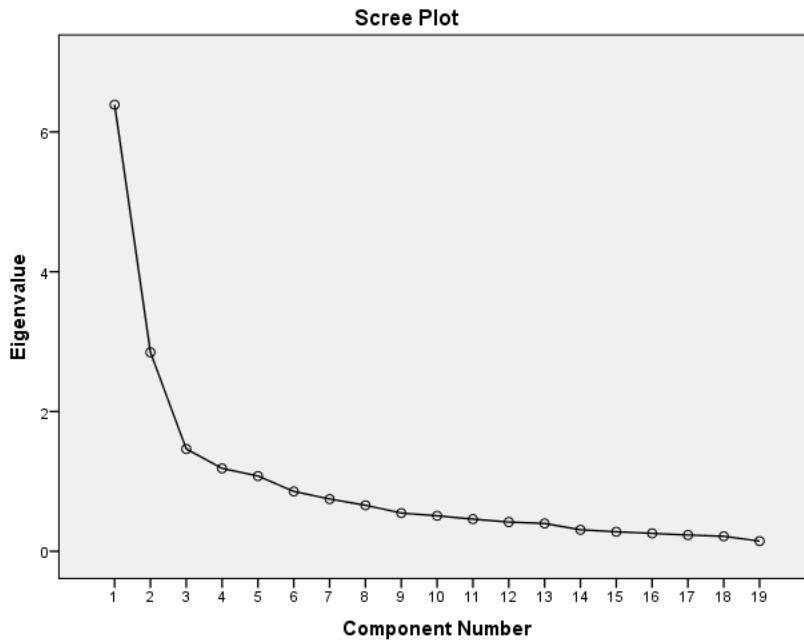
Rotated Component Matrix[a]

	Component			
	1	2	3	4
CLTR3 The teacher treats students with respect.	,823	,241	-,02	-,04
CLTR4 The teacher listens to you when you have a problem.	,814	,119	,144	-,04
CLTR1 The teacher cares about the students.	,805	,062	,131	,099
CLTR6 The teacher helps me with my work.	,769	,051	,244	,147
CLTR5 The teacher lets you know when you are doing a good job.	,722	-,05	,252	,165
CLTR7 I feel comfortable telling the teacher when I don't understand.	,707	,094	,065	,203
CLTR2 Adults who work in this school care about the students.	,662	,364	-,08	-,01
CLTR8 The teacher takes a personal interest in me.	,629	-,04	,114	,237
CLSR10 The students in class get along with one another.	,190	,832	,023	,067
CLSR11 The students treat each other with respect.	,075	,830	,237	-,03
CLSR12 The students are friendly towards most other students.	,003	,796	,156	,055
CLSR9 The students in class really care about each other.	,170	,699	,198	,126
CLCO15 When I work with other students in this class there is teamwork.	,091	,306	,767	,048
CLCO14 I learn from other students in this class.	,129	,173	,744	-,06
CLCO13 I cooperate with others when doing assignments.	,013	,514	,567	,020
CLCO20 What I learn in class is relevant to my future.	,389	-,03	,499	,212
CLCO19 I discuss with others how to go about solving problems	,363	,130	,497	,417
CLIN18 I am asked to explain how I solve problems.	,201	-,04	-,03	,778
CLIN17 I give my opinions during discussions in this class.	,076	,190	,106	,753

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]
a. Rotation converged in 7 iterations.

Reliability
Scale: CLTR

Reliability Statistics

Cronbach's Alpha	N of Items
,890	8

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CLTR1 The teacher cares about the students.	,746	,868
CLTR2 Adults who work in this school care about the students.	,574	,885
CLTR3 The teacher treats students with respect.	,755	,868
CLTR4 The teacher listens to you when you have a problem.	,724	,870
CLTR5 The teacher lets you know when you are doing a good job.	,655	,877
CLTR6 The teacher helps me with my work.	,722	,871
CLTR7 I feel comfortable telling the teacher when I don't understand.	,625	,881
CLTR8 The teacher takes a personal interest in me.	,529	,890

Scale: CLSR
Reliability Statistics

Cronbach's Alpha	N of Items
,862	4

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CLSR9 The students in class really care about each other.	,622	,859
CLSR10 The students in class get along with one another.	,745	,809
CLSR11 The students treat each other with respect.	,768	,801
CLSR12 The students are friendly towards most other students.	,706	,825

Scale: CLCO
Reliability Statistics

Cronbach's Alpha	N of Items
,723	5

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CLCO13 I cooperate with others when doing assignments.	,459	,686
CLCO14 I learn from other students in this class.	,488	,674
CLCO15 When I work with other students in this class there is teamwork.	,614	,620
CLCO19 I discuss with others how to go about solving problems	,484	,676
CLCO20 What I learn in class is relevant to my future.	,376	,717

Scale: CLIN

Reliability Statistics

Cronbach's Al- pha	N of Items
,419	2

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CLIN17 I give my opinions during discussions in this class.	,266	.
CLIN18 I am asked to explain how I solve problems.	,266	.

Factor Analysis- STUDENT ENGAGEMENT

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,664
Bartlett's Test of Sphericity	Approx. Chi-Square	639,596
	df	190
	Sig.	,000

Communalities

	Initial	Extraction
SEEM1 I am doing well on tests in class.	1,000	,467
SEEM2 I am confident that I can learn and do well in this class.	1,000	,565
SESK3 I make sure to study on a regular basis.	1,000	,174
SESK4 I put forth effort in this class.	1,000	,333
SESK6 I stay up on the readings in class.	1,000	,518
SEPA7 I look over the notes between classes to make sure I understand the material.	1,000	,591
SESK8 I am organized.	1,000	,475
SESK9 I take good notes in class.	1,000	,511
SESK10 I listen carefully in class.	1,000	,571
SESK11 I come to class prepared everyday.	1,000	,225
SECO12 I think about this class when I am not in school.	1,000	,433
SECO13 I want to learn the class subject matter.	1,000	,419
SEPA14 I raise my hand in class.	1,000	,560
SEPA15 I ask questions when I don't understand the teacher.	1,000	,625
SECO16 I enjoy this class.	1,000	,608
SEPA17 I participate actively in small group discussions.	1,000	,419
SEPA18 I go to the teacher to review assignments or tests.	1,000	,540
SECO19 I help my fellow classmates.	1,000	,438
SEEM20 I am getting a good grade in class.	1,000	,668
SEEM21 I am not doing well in this class.	1,000	,487

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,295	21,476	21,476	2,634	13,168	13,168
2	2,155	10,774	32,250	2,370	11,851	25,019

3	1,880	9,402	41,652	2,325	11,626	36,646
4	1,297	6,484	48,136	2,298	11,490	48,136
5	1,254	6,269	54,404			
6	1,069	5,347	59,751			
7	,997	4,987	64,738			
18	,299	1,495	97,557			
19	,287	1,437	98,993			
20	,201	1,007	100,000			

Extraction Method: Principal Component Analysis.

Scree Plot

Rotated Component Matrix[a]

	Component			
	1	2	3	4
SESK10 I listen carefully in class.	.717		-,17	,135
SESK6 I stay up on the readings in class.	.708		,108	
SESK9 I take good notes in class.	.629	,317		
SESK11 I come to class prepared everyday.	.460			
SESK8 I am organized.	.413		,407	-,37
SESK4 I put forth effort in this class.	.401	,223	,266	,229
SESK3 I make sure to study on a regular basis.	.344		,172	,161
SEEM20 I am getting a good grade in class.		,804	,132	
SEEM21 I am not doing well in this class.		-.68	,153	
SEEM2 I am confident that I can learn and do well in this class.		.588	,449	,134
SEEM1 I am doing well on tests in class.	,366	,575		
SEPA18 I go to the teacher to review assignments or tests.			,710	,171
SEPA15 I ask questions when I don't understand the teacher.		,185	,691	,335
SEPA7 I look over the notes between classes to make sure I understand the material.	,508		,561	
SEPA17 I participate actively in small group discussions.	,180	,118	,466	,394
SEPA14 I raise my hand in class.	,122		,341	,654
SECO12 I think about this class when I am not in school.			,101	,645
SECO16 I enjoy this class.	-,10	,466	,144	,600
SECO19 I help my fellow classmates.	,301	-,26	-,11	,520
SECO13 I want to learn the class subject matter.		,289	,299	,493

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.[a]
a. Rotation converged in 8 iterations.

Scale: SEEM

Reliability Statistics

Cronbach's Alpha	N of Items
,647	4

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SEEM1 I am doing well on tests in class.	.457	.563
SEEM2 I am confident that I can learn and do well in this class.	.340	.635
SEEM20 I am getting a good grade in class.	.535	.509
SEEM21R	.411	.606

Scale: SESK

Reliability Statistics

Cronbach's Alpha	N of Items
.641	7

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SESK3 I make sure to study on a regular basis.	.255	.643
SESK4 I put forth effort in this class.	.388	.599
SESK6 I stay up on the readings in class.	.451	.570
SESK8 I am organized.	.342	.608
SESK9 I take good notes in class.	.365	.601
SESK10 I listen carefully in class.	.416	.600
SESK11 I come to class prepared everyday.	.329	.612

Scale: SEPA

Reliability Statistics

Cronbach's Alpha	N of Items
,677	5

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SEPA7 I look over the notes between classes to make sure I understand the material.	.289	.690
SEPA14 I raise my hand in class.	.349	.661
SEPA15 I ask questions when I don't understand the teacher.	.560	.566
SEPA17 I participate actively in small group discussions.	.466	.612
SEPA18 I go to the teacher to review assignments or tests.	.508	.590

Scale: SECO

Reliability Statistics

Cronbach's Alpha	N of Items
,562	4

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SECO12 I think about this class when I am not in school.	.429	.413
SECO13 I want to learn the class subject matter.	.408	.442
SECO16 I enjoy this class.	.382	.460
SECO19 I help my fellow classmates.	.178	.609

APPENDIX D

DESCRIPTIVE OF THE CONSTRUCTS

Group Statistics

	PrePost Pre/Post	N	Mean	Std. Deviation
SCSM1 I prefer to spend time alone in class.	1 Pretest	79	2,77	1,386
	2 Post-test	65	2,49	1,501
SCSM2 I enjoy spending time with people in class.	1 Pretest	79	4,01	1,092
	2 Post-test	65	4,03	,968
SCSM3 I avoid talking to people in class.	1 Pretest	78	2,77	1,268
	2 Post-test	64	2,44	1,402
SCSM4 I stay in the background in social group situations.	1 Pretest	75	2,81	1,411
	2 Post-test	65	2,74	1,428
SCSA6 I get anxious in class.	1 Pretest	76	2,55	1,500
	2 Post-test	63	2,43	1,510
SCSM7 I have a lot of friends in class.	1 Pretest	78	3,58	1,490
	2 Post-test	64	3,67	1,481
SCSM8 I am popular with my classmates.	1 Pretest	79	3,09	1,495
	2 Post-test	65	2,98	1,386
SCCO9 I do things with others in class.	1 Pretest	79	3,95	1,165
	2 Post-test	65	4,11	1,002
SCSC10 I am easy to like.	1 Pretest	78	3,45	1,234
	2 Post-test	65	3,66	1,079
SCCO11 I am comfortable voicing my opinion in this class.	1 Pretest	79	3,59	1,446
	2 Post-test	63	3,60	1,397
SCSM12 It is easy for me to make friends.	1 Pretest	77	3,69	1,417
	2 Post-test	62	3,98	1,123
SCSM13 I am important to my classmates.	1 Pretest	78	3,15	1,290
	2 Post-test	62	3,18	1,195
SCCO14 I am not able to verbalize my thoughts in class.	1 Pretest	76	2,47	1,400
	2 Post-test	62	2,39	1,285
SCSC15 I am sure of myself in class.	1 Pretest	78	3,81	1,094
	2 Post-test	63	3,73	1,221
SCSA16 I misread social cues in class.	1 Pretest	78	2,76	1,291
	2 Post-test	64	2,55	1,272
SCCO17 I look people in the eye when speaking to them in class.	1 Pretest	79	3,51	1,348
	2 Post-test	65	3,91	1,259
SCSC18 I feel good about the way I act.	1 Pretest	78	3,83	1,178
	2 Post-test	63	4,00	1,107
SCSC19 I am a good person.	1 Pretest	77	3,92	1,275
	2 Post-test	65	4,20	1,019

106

Group Statistics				
	Pre/Post Pre/Post	N	Mean	Std. Deviation
SEEM1 I am doing well on tests in class.	1 Pretest	78	4,06	1,143
	2 Post-test	65	4,45	,730
SEEM2 I am confident that I can learn and do well in this class.	1 Pretest	78	4,36	1,069
	2 Post-test	64	4,38	,934
SESK3 I make sure to study on a regular basis.	1 Pretest	79	3,58	1,287
	2 Post-test	61	3,48	1,312
SESK4 I put forth effort in this class.	1 Pretest	77	4,34	,968
	2 Post-test	64	4,27	,963
SESK6 I stay up on the readings in class.	1 Pretest	75	3,53	1,288
	2 Post-test	61	3,66	1,340
SEPA7 I look over the notes between classes to make sure I understand the material.	1 Pretest	78	3,54	1,374
	2 Post-test	63	3,43	1,341
SESK8 I am organized.	1 Pretest	77	3,92	1,178
	2 Post-test	64	3,91	1,178
SESK9 I take good notes in class.	1 Pretest	76	4,11	1,228
	2 Post-test	64	4,09	1,065
SESK10 I listen carefully in class.	1 Pretest	79	4,23	,767
	2 Post-test	65	4,48	,731
SESK11 I come to class prepared everyday.	1 Pretest	79	3,99	1,019
	2 Post-test	65	4,03	1,118
SECO12 I think about this class when I am not in school.	1 Pretest	79	2,58	1,533
	2 Post-test	65	2,69	1,610
SECO13 I want to learn the class subject matter.	1 Pretest	79	3,90	1,297
	2 Post-test	63	3,70	1,315
SEPA14 I raise my hand in class.	1 Pretest	79	3,89	1,405
	2 Post-test	63	3,95	1,250
SEPA15 I ask questions when I don't understand the teacher.	1 Pretest	78	3,83	1,371
	2 Post-test	65	3,89	1,312
SECO16 I enjoy this class.	1 Pretest	79	3,87	1,381
	2 Post-test	64	3,86	1,332
SEPA17 I participate actively in small group discussions.	1 Pretest	77	3,60	1,259
	2 Post-test	64	3,81	1,246
SEPA18 I go to the teacher to review assignments or tests.	1 Pretest	76	3,07	1,330
	2 Post-test	63	3,43	1,388
SECO19 I help my fellow classmates.	1 Pretest	77	3,58	1,408
	2 Post-test	64	3,70	1,064
SEEM20 I am getting a good grade in class.	1 Pretest	78	4,49	,936
	2 Post-test	65	4,34	1,050
SEEM21 I am not doing well in this class.	1 Pretest	78	1,69	1,188
	2 Post-test	64	1,89	1,404

Group Statistics

	Pre/Post Pre/Post	N	Mean	Std. Deviation
CLTR1 The teacher cares about the students.	1 Pretest	77	3,97	1,298
	2 Post-test	64	3,83	1,420
CLTR2 Adults who work in this school care about the students.	1 Pretest	79	3,96	1,192
	2 Post-test	63	3,81	1,366
CLTR3 The teacher treats students with respect.	1 Pretest	79	3,99	1,266
	2 Post-test	64	3,89	1,311
CLTR4 The teacher listens to you when you have a problem.	1 Pretest	78	3,95	1,413
	2 Post-test	65	3,89	1,404
CLTR5 The teacher lets you know when you are doing a good job.	1 Pretest	78	3,97	1,348
	2 Post-test	65	3,91	1,343
CLTR6 The teacher helps me with my work.	1 Pretest	78	3,77	1,289
	2 Post-test	64	3,77	1,294
CLTR7 I feel comfortable telling the teacher when I don't understand.	1 Pretest	78	3,67	1,420
	2 Post-test	64	3,50	1,447
CLTR8 The teacher takes a personal interest in me.	1 Pretest	79	3,19	1,387
	2 Post-test	64	3,25	1,403
CLSR9 The students in class really care about each other.	1 Pretest	77	2,95	1,404
	2 Post-test	63	2,90	1,160
CLSR10 The students in class get along with one another.	1 Pretest	76	2,93	1,370
	2 Post-test	65	2,98	1,281
CLSR11 The students treat each other with respect.	1 Pretest	79	2,90	1,257
	2 Post-test	65	2,88	1,293
CLSR12 The students are friendly towards most other students.	1 Pretest	78	3,28	1,318
	2 Post-test	63	2,97	1,319
CLCO13 I cooperate with others when doing assignments.	1 Pretest	78	3,82	1,277
	2 Post-test	65	3,94	1,130
CLCO14 I learn from other students in this class.	1 Pretest	77	3,39	1,470
	2 Post-test	65	3,46	1,288
CLCO15 When I work with other students in this class there is teamwork.	1 Pretest	77	3,40	1,498
	2 Post-test	64	3,88	1,215
CLIN17 I give my opinions during discussions in this class.	1 Pretest	78	3,54	1,483
	2 Post-test	65	3,32	1,542
CLIN18 I am asked to explain how I solve problems.	1 Pretest	79	3,71	1,341
	2 Post-test	63	3,44	1,412
CLCO19 I discuss with others how to go about solving problems	1 Pretest	79	3,09	1,416
	2 Post-test	64	3,47	1,284
CLCO20 What I learn in class is relevant to my future.	1 Pretest	79	3,66	1,386
	2 Post-test	65	3,83	1,294

Descriptives
PRE

	Mean	Std. Deviation
SCSM1 I prefer to spend time alone in class.	2.77	1.386
SCSM2 I enjoy spending time with people in class.	4.01	1.092
SCSM3 I avoid talking to people in class.	2.77	1.268
SCSM4 I stay in the background in social group situations.	2.81	1.411
SCSA6 I get anxious in class.	2.55	1.500
SCSM7 I have a lot of friends in class.	3.58	1.490
SCSM8 I am popular with my classmates.	3.09	1.495
SCCO9 I do things with others in class.	3.95	1.165
SCSC10 I am easy to like.	3.45	1.234
SCCO11 I am comfortable voicing my opinion in this class.	3.59	1.446
SCSM12 It is easy for me to make friends.	3.69	1.417
SCSM13 I am important to my classmates.	3.15	1.290
SCCO14 I am not able to verbalize my thoughts in class.	2.47	1.400
SCSC15 I am sure of myself in class.	3.81	1.094
SCSA16 I misread social cues in class.	2.76	1.291
SCCO17 I look people in the eye when speaking to them in class.	3.51	1.348
SCSC18 I feel good about the way I act.	3.83	1.178
SCSC19 I am a good person.	3.92	1.275
Valid N (listwise)		

Descriptives Pre

	Mean	Std. Deviation
SEEM1 I am doing well on tests in class.	4.06	1.143
SEEM2 I am confident that I can learn and do well in this class.	4.36	1.069
SESK3 I make sure to study on a regular basis.	3.58	1.287
SESK4 I put forth effort in this class.	4.34	.968
SESK6 I stay up on the readings in class.	3.53	1.288
SEPA7 I look over the notes between classes to make sure I understand the material.	3.54	1.374
SESK8 I am organized.	3.92	1.178
SESK9 I take good notes in class.	4.11	1.228
SESK10 I listen carefully in class.	4.23	.767
SESK11 I come to class prepared everyday.	3.99	1.019
SECO12 I think about this class when I am not in school.	2.58	1.533
SECO13 I want to learn the class subject matter.	3.90	1.297
SEPA14 I raise my hand in class.	3.89	1.405
SEPA15 I ask questions when I don't understand the teacher.	3.83	1.371
SECO16 I enjoy this class.	3.87	1.381
SEPA17 I participate actively in small group discussions.	3.60	1.259
SEPA18 I go to the teacher to review assignments or tests.	3.07	1.330
SECO19 I help my fellow classmates.	3.58	1.408
SEEM20 I am getting a good grade in class.	4.49	.936
SEEM21 I am not doing well in this class.	1.69	1.188
Valid N (listwise)		

Descriptives PRE

<div align="center">

Descriptive Statistics

</div>

	N	Minimum	Maximum	Mean	Std. Deviation
SCITR1 The teacher cares about the students.	77	1	5	3.97	1.298
SCITR2 Adults who work in this school care about the students.	79	1	5	3.96	1.192
SCITR3 The teacher treats students with respect.	79	1	5	3.99	1.266
SCITR4 The teacher listens to you when you have a problem.	78	1	5	3.95	1.413
SCITR5 The teacher lets you know when you are doing a good job.	78	1	5	3.97	1.348
SCITR6 The teacher helps me with my work.	78	1	5	3.77	1.289
SCITR7 I feel comfortable telling the teacher when I don't understand.	78	1	5	3.67	1.420
SCITR8 The teacher takes a personal interest in me.	79	1	5	3.19	1.387
SCISR9 The students in class really care about each other.	77	1	5	2.95	1.404
SCISR10 The students in class get along with one another.	76	1	5	2.93	1.370
SCISR11 The students treat each other with respect.	79	1	5	2.90	1.257
SCISR12 The students are friendly towards most other students.	78	1	5	3.28	1.318
SCICO13 I cooperate with others when doing assignments.	78	1	5	3.82	1.277
SCICO14 I learn from other students in this class.	77	1	5	3.39	1.470
SCICO15 When I work with other students in this class there is teamwork.	77	1	5	3.40	1.498
SCIIN17 I give my opinions during discussions in this class.	78	1	5	3.54	1.483
SCIIN18 I am asked to explain how I solve problems.	79	1	5	3.71	1.341
SCICO19 I discuss with others how to go about solving problems	79	1	5	3.09	1.416
SCICO20 What I learn in class is relevant to my future.	79	1	5	3.66	1.386
Valid N (listwise)	64				

Descriptives Post

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SCITR1 The teacher cares about the students.	64	1	5	3.83	1.420
SCITR2 Adults who work in this school care about the students.	63	1	5	3.81	1.366
SCITR3 The teacher treats students with respect.	64	1	5	3.89	1.311
SCITR4 The teacher listens to you when you have a problem.	65	1	5	3.89	1.404
SCITR5 The teacher lets you know when you are doing a good job.	65	1	5	3.91	1.343
SCITR6 The teacher helps me with my work.	64	1	5	3.77	1.294
SCITR7 I feel comfortable telling the teacher when I don't understand.	64	1	5	3.50	1.447
SCITR8 The teacher takes a personal interest in me.	64	1	5	3.25	1.403
SCISR9 The students in class really care about each other.	63	1	5	2.90	1.160
SCISR10 The students in class get along with one another.	65	1	5	2.98	1.281
SCISR11 The students treat each other with respect.	65	1	5	2.88	1.293
SCISR12 The students are friendly towards most other students.	63	1	5	2.97	1.319
SCICO13 I cooperate with others when doing assignments.	65	1	5	3.94	1.130
SCICO14 I learn from other students in this class.	65	1	5	3.46	1.288
SCICO15 When I work with other students in this class there is teamwork.	64	1	5	3.88	1.215
SCIIN17 I give my opinions during discussions in this class.	65	1	5	3.32	1.542
SCIIN18 I am asked to explain how I solve problems.	63	1	5	3.44	1.412
SCICO19 I discuss with others how to go about solving problems	64	1	5	3.47	1.284
SCICO20 What I learn in class is relevant to my future.	65	1	5	3.83	1.294
Valid N (listwise)	55				

Descriptives Post

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SEEM1 I am doing well on tests in class.	65	2	5	4.45	.730
SEEM2 I am confident that I can learn and do well in this class.	64	1	5	4.38	.934
SESK3 I make sure to study on a regular basis.	61	1	5	3.48	1.312
SESK4 I put forth effort in this class.	64	1	5	4.27	.963
SESK6 I stay up on the readings in class.	61	1	5	3.66	1.340
SEPA7 I look over the notes between classes to make sure I understand the material.	63	1	5	3.43	1.341
SESK8 I am organized.	64	1	5	3.91	1.178
SESK9 I take good notes in class.	64	1	5	4.09	1.065
SESK10 I listen carefully in class.	65	1	5	4.48	.731
SESK11 I come to class prepared everyday.	65	1	5	4.03	1.118
SECO12 I think about this class when I am not in school.	65	1	5	2.69	1.610
SECO13 I want to learn the class subject matter.	63	1	5	3.70	1.315
SEPA14 I raise my hand in class.	63	1	5	3.95	1.250
SEPA15 I ask questions when I don't understand the teacher.	65	1	5	3.89	1.312
SECO16 I enjoy this class.	64	1	5	3.86	1.332
SEPA17 I participate actively in small group discussions.	64	1	5	3.81	1.246
SEPA18 I go to the teacher to review assignments or tests.	63	1	5	3.43	1.388
SECO19 I help my fellow classmates.	64	1	5	3.70	1.064
SEEM20 I am getting a good grade in class.	65	1	5	4.34	1.050
SEEM21 I am not doing well in this class.	64	1	5	1.89	1.404
Valid N (listwise)	51				

Descriptives

Descriptive Statistics   post test

	N	Min	Max	Mean	SD
SCSM1 I prefer to spend time alone in class.	65	1	5	2,49	1,501
SCSM2 I enjoy spending time with people in class.	65	1	5	4.03	.968
SCSM3 I avoid talking to people in class.	64	1	5	2.44	1.402
SCSM4 I stay in the background in social group situations.	65	1	5	2.74	1.428
SCSA6 I get anxious in class.	63	1	5	2.43	1.510
SCSM7 I have a lot of friends in class.	64	1	5	3.67	1.481
SCSM8 I am popular with my classmates.	65	1	5	2.98	1.386
SCCO9 I do things with others in class.	65	1	5	4.11	1.002
SCSC10 I am easy to like.	65	1	5	3.66	1.079
SCCO11 I am comfortable voicing my opinion in this class.	63	1	5	3.60	1.397
SCSM12 It is easy for me to make friends.	62	1	5	3.98	1.123
SCSM13 I am important to my classmates.	62	1	5	3.18	1.195
SCCO14 I am not able to verbalize my thoughts in class.	62	1	5	2.39	1.285
SCSC15 I am sure of myself in class.	63	1	5	3.73	1.221
SCSA16 I misread social cues in class.	64	1	5	2.55	1.272
SCCO17 I look people in the eye when speaking to them in class.	65	1	5	3.91	1.259
SCSC18 I feel good about the way I act.	63	1	5	4.00	1.107
SCSC19 I am a good person.	65	1	5	4.20	1.019
Valid N (listwise)	48				

APPENDIX E

HYPOTHESIS TEST

General Linear Model Hypothesis 1

Between-Subjects Factors

		Value Label	N
Pre/Post Pre/Post	1	Pretest	79
	2	Post-test	65

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.981	2.402,826[b]	3,000	140,000	.000
	Wilks' Lambda	.019	2.402,826[b]	3,000	140,000	.000
	Hotelling's Trace	51.489	2.402,826[b]	3,000	140,000	.000
	Roy's Largest Root	51.489	2.402,826[b]	3,000	140,000	.000
Pre/Post	Pillai's Trace	.016	.776[b]	3,000	140,000	.509
	Wilks' Lambda	.984	.776[b]	3,000	140,000	.509
	Hotelling's Trace	.017	.776[b]	3,000	140,000	.509
	Roy's Largest Root	.017	.776[b]	3,000	140,000	.509

a. Design: Intercept + Pre/Post
b. Exact statistic

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	
Corrected Model	SC Social Competence	.738[a]	1	,738	1,567	,213
	SE Social Engagement	.109[b]	1	,109	,315	,576
	CL Social Climate	.011[c]	1	,011	,019	,890
Intercept	SC Social Competence	1844,524	1	1844,524	3.916,802	.000
	SE Social Engagement	2117,423	1	2117,423	6.103,298	.000
	CL Social Climate	1776,169	1	1776,169	3.189,904	.000
Pre/Post	SC Social Competence	.738	1	.738	1.567	.213
	SE Social Engagement	.109	1	.109	.315	.576
	CL Social Climate	,011	1	.011	.019	.890
Error	SC Social Competence	66,871	142	.471		
	SE Social Engagement	49,264	142	.347		
	CL Social Climate	79,067	142	.557		
Total	SC Social Competence	1922,500	144			
	SE Social Engagement	2184,018	144			
	CL Social Climate	1873,054	144			
Corrected Total	SC Social Competence	67,609	143			
	SE Social Engagement	49,373	143			
	CL Social Climate	79,078	143			

a. R Squared = .011 (Adjusted R Squared = .004)
b. R Squared = .002 (Adjusted R Squared = -.005)
c. R Squared = .000 (Adjusted R Squared = -.007)

Regression Hypothesis 2

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	SCL Social Climate	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SE Social Engagement
b. Models are based only on cases for which Pre/Post Pre/Post = 1 Pretest

Model Summary

Model	R Pre/Post Pre/Post = 1 Pretest (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	.503[a]	.253	.243	.51582

a. Predictors: (Constant), SCL Social Climate

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.929	1	6.929	26.044	.000[c]
	Residual	20.487	77	.266		
	Total	27.417	78			

a. Dependent Variable: SE Social Engagement
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest
c. Predictors: (Constant), SCL Social Climate

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.458	.274		8.966	.000
	SCL Social Climate	.387	.076	.503	5.103	.000

a. Dependent Variable: SE Social Engagement
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SC Social Competence	.147[b]	1.402	.165	.159	.878

a. Dependent Variable: SE Social Engagement
b. Predictors in the Model: (Constant), SCL Social Climate

Regression

<p style="text-align:center">Variables Entered/Removed[a,b]</p>

Model	Variables Entered	Variables Removed	Method
1	SCLCO Collaboration	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	SCSC Self Confidence	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	SCLTR Teacher Relation	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: SE Social Engagement
b. Models are based only on cases for which Pre/Post
Pre/Post = 1 Pretest

<p style="text-align:center">Model Summary</p>

Model	R — Pre/Post Pre/Post = 1 Pretest (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	.446[a]	.199	.189	.53401
2	.563[b]	.317	.299	.49646
3	.593[c]	.352	.326	.48681

a. Predictors: (Constant), SCLCO Collaboration
b. Predictors: (Constant), SCLCO Collaboration, SCSC Self Confidence
c. Predictors: (Constant), SCLCO Collaboration, SCSC Self Confidence, SCLTR Teacher Relation

<p style="text-align:center">ANOVA[a,b]</p>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.459	1	5.459	19.144	.000[c]
	Residual	21.958	77	,285		
	Total	27.417	78			
2	Regression	8.685	2	4,343	17.619	.000[d]
	Residual	18.732	76	.246		
	Total	27.417	78			
3	Regression	9.643	3	3.214	13.563	.000[e]
	Residual	17.774	75	.237		
	Total	27.417	78			

a. Dependent Variable: SE Social Engagement
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest
c. Predictors: (Constant), SCLCO Collaboration
d. Predictors: (Constant), SCLCO Collaboration, SCSC Self Confidence
e. Predictors: (Constant), SCLCO Collaboration, SCSC Self Confidence, SCLTR Teacher Relation

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.887	,223		12.964	.000
	SCLCO Collaboration	.270	,062	.446	4.375	.000
2	(Constant)	2.103	.300		7.016	.000
	SCLCO Collaboration	.223	.059	.368	3.788	.000
	SCSC Self Confidence	.253	.070	.352	3.618	.001
3	(Constant)	1.813	.327		5.538	.000
	SCLCO Collaboration	.158	.066	.261	2.390	.019
	SCSC Self Confidence	.260	.069	.361	3.781	.000
	SCLTR Teacher Relation	.29	.064	.215	2.010	.048

a. Dependent Variable: SE Social Engagement
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SCSM Social Motivation	.184[b]	1,758	,083	.198	.922
	SCSA Social Adaptability	-.034[b]	-,330	,742	-.038	.999
	SCCO Collaboration	,005[b]	.051	,959	.006	.967
	SCSC Self Confidence	.352[b]	3.618	,001	.383	.951
	SCLTR Teacher Relation	.196[b]	1.691	,095	.190	.760
	SCLSR Student Relation	.146[b]	1.202	,233	.137	.702
	SCLIN Involvement	.203[b]	1.894	.062	.212	.877
2	SCSM Social Motivation	.077[c]	.738	.463	.085	.826
	SCSA Social Adaptability	-.104[c]	-1.073	.287	-.123	.962
	SCCO Collaboration	-.095[c]	-.952	.344	-.109	.897
	SCLTR Teacher Relation	.215[c]	2.010	.048	.226	.758
	SCLSR Student Relation	.071[c]	.609	.544	.070	.677
	SCLIN Involvement	.194[c]	1.953	.055	.220	.877
3	SCSM Social Motivation	.054[d]	.518	.606	.060	.815
	SCSA Social Adaptability	-.124[d]	-1.307	.195	-.150	.952
	SCCO Collaboration	-.117[d]	-1,189	,238	-,137	.888
	SCLSR Student Relation	.044[d]	.382	.703	.044	.667
	SCLIN Involvement	.185[d]	1.888	.063	.214	.874

a. Dependent Variable: SE Social Engagement
b. Predictors in the Model: (Constant), SCLCO Collaboration
c. Predictors in the Model: (Constant), SCLCO Collaboration, SCSC Self Confidence
d. Predictors in the Model: (Constant), SCLCO Collaboration, SCSC Self Confidence, SCLTR Teacher Relation

Regression

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	SCSM Social Motivation	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	SCSC Self Confidence	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	SCLTR Teacher Relation	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: SEEM Emotional
b. Models are based only on cases for which Pre/Post
Pre/Post = 1 Pretest

Model Summary

Model	R Pre/Post Pre/Post = 1 Pretest (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	.419[a]	.176	.165	.74476
2	.489[b]	.239	.219	.72035
3	.540[c]	.292	.264	.69939

a. Predictors: (Constant), SCSM Social Motivation
b. Predictors: (Constant), SCSM Social Motivation, SCSC Self Confidence
c. Predictors: (Constant), SCSM Social Motivation, SCSC Self Confidence, SCLTR Teacher Relation

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.108	1	9.108	16.421	.000[c]
	Residual	42.709	77	.555		
	Total	51.817	78			
2	Regression	12.380	2	6.190	11.929	.000[d]
	Residual	39.437	76	.519		
	Total	51.817	78			
3	Regression	15.131	3	5.044	10.311	.000[e]
	Residual	36.686	75	.489		
	Total	51.817	78			

a. Dependent Variable: SEEM Emotional
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest
c. Predictors: (Constant), SCSM Social Motivation
d. Predictors: (Constant), SCSM Social Motivation, SCSC Self Confidence
e. Predictors: (Constant), SCSM Social Motivation, SCSC Self Confidence, SCLTR
Teacher Relation

118

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,027	,324		9,354	,000
	SCSM Social Motivation	,373	,092	,419	4,052	,000
2	(Constant)	2,324	,420		5,535	,000
	SCSM Social Motivation	,286	,096	,321	2,990	,004
	SCSC Self Confidence	,267	,106	,270	2,511	,014
3	(Constant)	1,730	,479		3,614	,001
	SCSM Social Motivation	,239	,095	,269	2,520	,014
	SCSC Self Confidence	,270	,103	,273	2,615	,011
	SCLTR Teacher Relation	,195	,082	,236	2,372	,020

a. Dependent Variable: SEEM Emotional
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SCSA Social Adaptability	-,063[b]	-,571	,569	-,065	,885
	SCCO Collaboration	-,132[b]	-1,103	,273	-,126	,746
	SCSC Self Confidence	,270[b]	2,511	,014	,277	,868
	SCLTR Teacher Relation	,233[b]	2,256	,027	,250	,953
	SCLSR Student Relation	,189[b]	1,682	,097	,189	,827
	SCLCO Collaboration	,087[b]	,801	,426	,092	,922
	SCLIN Involvement	,140[b]	1,336	,186	,151	,962
2	SCSA Social Adaptability	-,086[c]	-,800	,426	-,092	,879
	SCCO Collaboration	-,177[c]	-1,526	,131	-,174	,731
	SCLTR Teacher Relation	,236[c]	2,372	,020	,264	,952
	SCLSR Student Relation	,152[c]	1,371	,174	,156	,809
	SCLCO Collaboration	,052[c]	,496	,621	,057	,905
	SCLIN Involvement	,132[c]	1,302	,197	,149	,961
3	SCSA Social Adaptability	-,092[d]	-,885	,379	-,102	,879
	SCCO Collaboration	-,196[d]	-1,740	,086	-,198	,727
	SCLSR Student Relation	,084[d]	,737	,463	,085	,739
	SCLCO Collaboration	-,076[d]	-,659	,512	-,076	,710
	SCLIN Involvement	,094[d]	,928	,356	,107	,931

a. Dependent Variable: SEEM Emotional
b. Predictors in the Model: (Constant), SCSM Social Motivation
c. Predictors in the Model: (Constant), SCSM Social Motivation, SCSC Self Confidence
d. Predictors in the Model: (Constant), SCSM Social Motivation, SCSC Self Confidence, SCLTR Teacher Relation

Regression

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	SCSC Self Confidence	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SESK Skills
b. Models are based only on cases for which Pre/Post
Pre/Post = 1 Pretest

Model Summary

Model	R PrePost Pre/Post = 1 Pretest (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,401[a]	,161	,150	,59056

a. Predictors: (Constant), SCSC Self Confidence

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5,141	1	5,141	14,742	,000[c]
	Residual	26,854	77	,349		
	Total	31,996	78			

a. Dependent Variable: SESK Skills
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest
c. Predictors: (Constant), SCSC Self Confidence

Coefficients[a,b]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,775	,311		8,920	,000
	SCSC Self Confidence	,312	,081	,401	3,840	,000

a. Dependent Variable: SESK Skills
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SCSM Social Motivation	-,206[b]	-1,868	,066	-,210	,868
	SCSA Social Adaptability	-,182[b]	-1,735	,087	-,195	,962
	SCCO Collaboration	-,174[b]	-1,609	,112	-,182	,911
	SCLTR Teacher Relation	,107[b]	1,019	,312	,116	,995
	SCLSR Student Relation	-,019[b]	-,177	,860	-,020	,924
	SCLCO Collaboration	,121[b]	1,131	,262	,129	,951
	SCLIN Involvement	,071[b]	,674	,502	,077	,990

a. Dependent Variable: SESK Skills b. Predictors in the Model: (Constant), SCSC Self Confidence

Regression

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	SCLCO Collaboration	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).
2	SCSM Social Motivation	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).
3	SCSA Social Adaptability	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SECO Cognitive
b. Models are based only on cases for which Pre/Post Pre/Post = 1 Pretest

Model Summary

Model	R Pre/Post Pre/Post = 1 Pretest (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,530[a]	,281	,272	,76623
2	,588[b]	,345	,328	,73621
3	,621[c]	,386	,362	,71754

a. Predictors: (Constant), SCLCO Collaboration
b. Predictors: (Constant), SCLCO Collaboration, SCSM Social Motivation
c. Predictors: (Constant), SCLCO Collaboration, SCSM Social Motivation, SCSA Social Adaptability

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17,701	1	17,701	30,150	,000[c]
	Residual	45,207	77	,587		
	Total	62,908	78			
2	Regression	21,716	2	10,858	20,033	,000[d]
	Residual	41,192	76	,542		
	Total	62,908	78			
3	Regression	24,294	3	8,098	15,728	,000[e]
	Residual	38,615	75	,515		
	Total	62,908	78			

a. Dependent Variable: SECO Cognitive
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest
c. Predictors: (Constant), SCLCO Collaboration
d. Predictors: (Constant), SCLCO Collaboration, SCSM Social Motivation
e. Predictors: (Constant), SCLCO Collaboration, SCSM Social Motivation, SCSA Social Adaptability

121

Coefficients^{a,b}

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,794	,320		5,614	,000
	SCLCO Collaboration	,486	,089	,530	5,491	,000
2	(Constant)	1,152	,387		2,977	,004
	SCLCO Collaboration	,419	,089	,457	4,724	,000
	SCSM Social Motivation	,258	,095	,263	2,722	,008
3	(Constant)	1,540	,415		3,709	,000
	SCLCO Collaboration	,406	,087	,443	4,694	,000
	SCSM Social Motivation	,333	,098	,340	3,390	,001
	SCSA Social Adaptability	-,180	,081	-,216	-2,237	,028

a. Dependent Variable: SECO Cognitive
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SCSM Social Motivation	,263^b	2,722	,008	,298	,922
	SCSA Social Adaptability	-,104^b	-1,074	,286	-,122	,999
	SCCO Collaboration	,058^b	,588	,559	,067	,967
	SCSC Self Confidence	,229^b	2,384	,020	,264	,951
	SCLTR Teacher Relation	,175^b	1,595	,115	,180	,760
	SCLSR Student Relation	,100^b	,865	,390	,099	,702
	SCLIN Involvement	,209^b	2,072	,042	,231	,877
2	SCSA Social Adaptability	-,216^c	-2,237	,028	-,250	,881
	SCCO Collaboration	-,085^c	-,788	,433	-,091	,744
	SCSC Self Confidence	,163^c	1,636	,106	,186	,852
	SCLTR Teacher Relation	,149^c	1,397	,167	,159	,753
	SCLSR Student Relation	,001^c	,011	,991	,001	,627
	SCLIN Involvement	,182^c	1,857	,067	,210	,867
3	SCCO Collaboration	-,072^d	-,688	,494	-,080	,742
	SCSC Self Confidence	,184^d	1,906	,060	,216	,845
	SCLTR Teacher Relation	,163^d	1,578	,119	,180	,750
	SCLSR Student Relation	,015^d	,133	,895	,015	,625
	SCLIN Involvement	,169^d	1,760	,083	,200	,863

a. Dependent Variable: SECO Cognitive
b. Predictors in the Model: (Constant), SCLCO Collaboration
c. Predictors in the Model: (Constant), SCLCO Collaboration, SCSM Social Motivation
d. Predictors in the Model: (Constant), SCLCO Collaboration, SCSM Social Motivation, SCSA Social Adaptability

Regression

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	SCLCO Collaboration	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SEPA Participation
b. Models are based only on cases for which Pre/Post Pre/Post = 1 Pretest

Model Summary

Model	R Pre/Post Pre/Post = 1 Pretest (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,417[a]	,174	,163	,78604

a. Predictors: (Constant), SCLCO Collaboration

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,009	1	10,009	16,199	,000[c]
	Residual	47,576	77	,618		
	Total	57,584	78			

a. Dependent Variable: SEPA Participation
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest
c. Predictors: (Constant), SCLCO Collaboration

Coefficients[a,b]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2,304	,328		7,030	,000
	SCLCO Collaboration	,366	,091	,417	4,025	,000

a. Dependent Variable: SEPA Participation
b. Selecting only cases for which Pre/Post Pre/Post = 1 Pretest

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SCSM Social Motivation	,080[b]	,736	,464	,084	,922
	SCSA Social Adaptability	,034[b]	,326	,745	,037	,999
	SCCO Collaboration	-,015[b]	-,143	,887	-,016	,967
	SCSC Self Confidence	,079[b]	,746	,458	,085	,951
	SCLTR Teacher Relation	,158[b]	1,337	,185	,152	,760
	SCLSR Student Relation	,087[b]	,698	,487	,080	,702
	SCLIN Involvement	,215[b]	1,976	,052	,221	,877

a. Dependent Variable: SEPA Participation b. Predictors in the Model: (Constant), SCLCO Collaboration

123

Regression Hypothesis 3

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	SCL Social Climate	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SE Social Engagement
b. Models are based only on cases for which Pre/Post Pre/Post = 2
Post-test

Model Summary

Model	R Pre/Post Pre/Post = 2 Post-test (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,737[a]	,543	,536	,39814

a. Predictors: (Constant), SCL Social Climate

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11,861	1	11,861	74,825	,000[c]
	Residual	9,986	63	,159		
	Total	21,847	64			

a. Dependent Variable: SE Social Engagement
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test
c. Predictors: (Constant), SCL Social Climate

Coefficients[a,b]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,760	,250		7,038	,000
	SCL Social Climate	,602	,070	,737	8,650	,000

a. Dependent Variable: SE Social Engagement
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SC Social Competence	,187[b]	1,955	,055	,241	,757

a. Dependent Variable: SE Social Engagement
b. Predictors in the Model: (Constant), SCL Social Climate

Regression

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	SCLTR Teacher Relation	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).
2	SCLCO Collaboration	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).
3	SCLIN Involvement	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).
4	SCSC Self Confidence	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SE Social Engagement
b. Models are based only on cases for which Pre/Post Pre/Post = 2
Post-test

Model Summary

Model	R Pre/Post Pre/Post = 2 Post-test (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,673[a]	,453	,444	,43560
2	,754[b]	,568	,555	,38994
3	,795[c]	,631	,613	,36339
4	,818[d]	,670	,648	,34685

a. Predictors: (Constant), SCLTR Teacher Relation
b. Predictors: (Constant), SCLTR Teacher Relation, SCLCO Collaboration
c. Predictors: (Constant), SCLTR Teacher Relation, SCLCO Collaboration, SCLIN Involvement
d. Predictors: (Constant), SCLTR Teacher Relation, SCLCO Collaboration, SCLIN Involvement, SCSC Self Confidence

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,893	1	9,893	52,141	,000[c]
	Residual	11,954	63	,190		
	Total	21,847	64			
2	Regression	12,420	2	6,210	40,840	,000[d]
	Residual	9,427	62	,152		
	Total	21,847	64			
3	Regression	13,792	3	4,597	34,813	,000[e]
	Residual	8,055	61	,132		
	Total	21,847	64			
4	Regression	14,629	4	3,657	30,401	,000[f]
	Residual	7,218	60	,120		
	Total	21,847	64			

a. Dependent Variable: SE Social Engagement
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test
c. Predictors: (Constant), SCLTR Teacher Relation
d. Predictors: (Constant), SCLTR Teacher Relation, SCLCO Collaboration

e. Predictors: (Constant), SCLTR Teacher Relation, SCLCO Collaboration, SCLIN Involvement

f. Predictors: (Constant), SCLTR Teacher Relation, SCLCO Collaboration, SCLIN Involvement, SCSC Self Confidence

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,419	,210		11,543	,000
	SCLTR Teacher Relation	,393	,054	,673	7,221	,000
2	(Constant)	1,783	,244		7,314	,000
	SCLTR Teacher Relation	,293	,055	,502	5,373	,000
	SCLCO Collaboration	,272	,067	,381	4,076	,000
3	(Constant)	1,655	,231		7,170	,000
	SCLTR Teacher Relation	,221	,055	,379	3,995	,000
	SCLCO Collaboration	,246	,063	,345	3,926	,000
	SCLIN Involvement	,145	,045	,288	3,223	,002
4	(Constant)	1,126	,298		3,782	,000
	SCLTR Teacher Relation	,228	,053	,391	4,307	,000
	SCLCO Collaboration	,215	,061	,301	3,528	,001
	SCLIN Involvement	,127	,044	,251	2,906	,005
	SCSC Self Confidence	,175	,066	,205	2,638	,011

a. Dependent Variable: SE Social Engagement

b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SCSM Social Motivation	,308[b]	3,509	,001	,407	,956
	SCSA Social Adaptability	,079[b]	,839	,405	,106	,987
	SCCO Collaboration	,296[b]	3,127	,003	,369	,852
	SCSC Self Confidence	,303[b]	3,498	,001	,406	,984
	SCLSR Student Relation	,061[b]	,636	,527	,081	,964
	SCLCO Collaboration	,381[b]	4,076	,000	,460	,798
	SCLIN Involvement	,333[b]	3,383	,001	,395	,769
2	SCSM Social Motivation	,213[c]	2,432	,018	,297	,842
	SCSA Social Adaptability	,026[c]	,300	,765	,038	,963
	SCCO Collaboration	,232[c]	2,634	,011	,320	,819
	SCSC Self Confidence	,241[c]	2,974	,004	,356	,940
	SCLSR Student Relation	-,010[c]	-,109	,913	-,014	,925
	SCLIN Involvement	,288[c]	3,223	,002	,381	,756
3	SCSM Social Motivation	,169[d]	2,012	,049	,251	,814
	SCSA Social Adaptability	,028[d]	,353	,725	,045	,963
	SCCO Collaboration	,166[d]	1,895	,063	,238	,752

	SCSC Self Confidence	,205[d]	2,638	,011	,322	,915
	SCLSR Student Relation	-,014[d]	-,174	,862	-,023	,924
4	SCSM Social Motivation	,084[e]	,896	,374	,116	,625
	SCSA Social Adaptability	-,018[e]	-,234	,816	-,030	,913
	SCCO Collaboration	,119[e]	1,358	,180	,174	,708
	SCLSR Student Relation	-,062[e]	-,777	,440	-,101	,880

a. Dependent Variable: SE Social Engagement
b. Predictors in the Model: (Constant), SCLTR Teacher Relation
c. Predictors in the Model: (Constant), SCLTR Teacher Relation, SCLCO Collaboration
d. Predictors in the Model: (Constant), SCLTR Teacher Relation, SCLCO Collaboration, SCLIN In-volvement
e. Predictors in the Model: (Constant), SCLTR Teacher Relation, SCLCO Collaboration, SCLIN In-volvement, SCSC Self Confidence

Regression

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	SCLIN Involvement	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SEEM Emotional
b. Models are based only on cases for which Pre/Post Pre/Post = 2 Post-test

Model Summary

Model	R Pre/Post Pre/Post = 2 Post-test (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,467[a]	,218	,206	,61178

a. Predictors: (Constant), SCLIN Involvement

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6,576	1	6,576	17,570	,000[c]
	Residual	23,579	63	,374		
	Total	30,156	64			

a. Dependent Variable: SEEM Emotional
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test
c. Predictors: (Constant), SCLIN Involvement

Coefficients[a,b]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,383	,235		14,376	,000
	SCLIN Involvement	,277	,066	,467	4,192	,000

a. Dependent Variable: SEEM Emotional
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Tolerance
1	SCSM Social Motivation	,078[b]	,668	,507	,085	,920
	SCSA Social Adaptability	-,023[b]	-,208	,836	-,026	,996
	SCCO Collaboration	,069[b]	,554	,582	,070	,815
	SCSC Self Confidence	-,021[b]	-,180	,858	-,023	,951
	SCLTR Teacher Relation	,173[b]	1,374	,174	,172	,769
	SCLSR Student Relation	-,135[b]	-1,206	,232	-,151	,983
	SCLCO Collaboration	,083[b]	,700	,486	,089	,900

a. Dependent Variable: SEEM Emotional
b. Predictors in the Model: (Constant), SCLIN Involvement

128

Regression

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Re-moved	Method
1	SCLCO Collabo-ration	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).
2	SCLTR Teacher Relation	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SESK Skills
b. Models are based only on cases for which Pre/Post Pre/Post = 2
Post-test

Model Summary

Model	R Pre/Post Pre/Post = 2 Post-test (Se-lected)	R Square	Adjusted R Square	Std. Error of the Esti-mate
1	.459[a]	.211	.198	.58327
2	.515[b]	.265	.242	.56721

a. Predictors: (Constant), SCLCO Collaboration
b. Predictors: (Constant), SCLCO Collaboration, SCLTR Teacher
Relation

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.717	1	5.717	16.805	.000[c]
	Residual	21.433	63	.340		
	Total	27.150	64			
2	Regression	7.203	2	3.601	11.194	.000[d]
	Residual	19.947	62	.322		
	Total	27.150	64			

a. Dependent Variable: SESK Skills
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test
c. Predictors: (Constant), SCLCO Collaboration
d. Predictors: (Constant), SCLCO Collaboration, SCLTR Teacher Relation

Coefficients[a,b]

Model		Unstandardized Coeffi-cients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2,633	,338		7,792	,000
	SCLCO Collaboration	,365	,089	,459	4,099	,000
2	(Constant)	2,346	,355		6,614	,000
	SCLCO Collaboration	,271	,097	,341	2,800	,007
	SCLTR Teacher Rela-tion	,170	,079	,262	2,149	,036

a. Dependent Variable: SESK Skills
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SCSM Social Motivation	,022[b]	,180	,858	,023	,843
	SCSA Social Adaptability	,223[b]	2,002	,050	,246	,964
	SCCO Collaboration	,123[b]	1,035	,305	,130	,887
	SCSC Self Confidence	,198[b]	1,740	,087	,216	,940
	SCLTR Teacher Relation	,262[b]	2,149	,036	,263	,798
	SCLSR Student Relation	-,012[b]	-,101	,920	-,013	,931
	SCLIN Involvement	,050[b]	,425	,672	,054	,900
2	SCSM Social Motivation	,013[c]	,106	,916	,014	,842
	SCSA Social Adaptability	,216[c]	1,994	,051	,247	,963
	SCCO Collaboration	,058[c]	,482	,631	,062	,819
	SCSC Self Confidence	,193[c]	1,749	,085	,218	,940
	SCLSR Student Relation	-,032[c]	-,284	,778	-,036	,925
	SCLIN Involvement	-,057[c]	-,455	,651	-,058	,756

a. Dependent Variable: SESK Skills
b. Predictors in the Model: (Constant), SCLCO Collaboration
c. Predictors in the Model: (Constant), SCLCO Collaboration, SCLTR Teacher Relation

Regression

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	SCLTR Teacher Relation	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).
2	SCLCO Collaboration	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SECO Cognitive
b. Models are based only on cases for which Pre/Post Pre/Post = 2
Post-test

Model Summary

Model	R Pre/Post Pre/Post = 2 Post-test (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,583[a]	,340	,329	,73788
2	,640[b]	,409	,390	,70347

a. Predictors: (Constant), SCLTR Teacher Relation
b. Predictors: (Constant), SCLTR Teacher Relation, SCLCO Collaboration

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17,646	1	17,646	32,410	,000[c]
	Residual	34,301	63	,544		
	Total	51,947	64			
2	Regression	21,265	2	10,632	21,485	,000[d]
	Residual	30,682	62	,495		
	Total	51,947	64			

a. Dependent Variable: SECO Cognitive
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test
c. Predictors: (Constant), SCLTR Teacher Relation
d. Predictors: (Constant), SCLTR Teacher Relation, SCLCO Collaboration

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,531	,355		4,313	,000
	SCLTR Teacher Relation	,525	,092	,583	5,693	,000
2	(Constant)	,771	,440		1,752	,085
	SCLTR Teacher Relation	,405	,098	,450	4,119	,000
	SCLCO Collaboration	,325	,120	,295	2,704	,009

a. Dependent Variable: SECO Cognitive
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	SCSM Social Motivation	,217[b]	2,129	,037	,261	,956
	SCSA Social Adaptability	-,106[b]	-1,028	,308	-,129	,987
	SCCO Collaboration	,215[b]	1,986	,051	,245	,852
	SCSC Self Confidence	,138[b]	1,347	,183	,169	,984
	SCLSR Student Relation	,188[b]	1,836	,071	,227	,964
	SCLCO Collaboration	,295[b]	2,704	,009	,325	,798
	SCLIN Involvement	,207[b]	1,802	,076	,223	,769
2	SCSM Social Motivation	,140[c]	1,326	,190	,167	,842
	SCSA Social Adaptability	-,151[c]	-1,539	,129	-,193	,963
	SCCO Collaboration	,165[c]	1,549	,127	,195	,819
	SCSC Self Confidence	,086[c]	,850	,398	,108	,940
	SCLSR Student Relation	,139[c]	1,384	,171	,174	,925
	SCLIN Involvement	,171[c]	1,541	,129	,194	,756

a. Dependent Variable: SECO Cognitive
b. Predictors in the Model: (Constant), SCLTR Teacher Relation
c. Predictors in the Model: (Constant), SCLTR Teacher Relation, SCLCO Collaboration

Regression

<p style="text-align:center">Variables Entered/Removed^{a,b}</p>

Model	Variables Entered	Variables Removed	Method
1	SCLIN Involvement	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).
2	SCSM Social Motivation	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).
3	SCLTR Teacher Relation	.	Stepwise (Criteria: Probability-of-F-to-enter <= ,050, Probability-of-F-to-remove >= ,100).

a. Dependent Variable: SEPA Participation
b. Models are based only on cases for which Pre/Post Pre/Post = 2 Post-test

<p style="text-align:center">Model Summary</p>

	R			
Model	Pre/Post Pre/Post = 2 Post-test (Selected)	R Square	Adjusted R Square	Std. Error of the Estimate
1	,594^a	,352	,342	,77887
2	,690^b	,476	,459	,70603
3	,759^c	,577	,556	,64005

a. Predictors: (Constant), SCLIN Involvement
b. Predictors: (Constant), SCLIN Involvement, SCSM Social Motivation
c. Predictors: (Constant), SCLIN Involvement, SCSM Social Motivation, SCLTR Teacher Relation

<p style="text-align:center">ANOVA^{a,b}</p>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20,800	1	20,800	34,287	,000^c
	Residual	38,218	63	,607		
	Total	59,018	64			
2	Regression	28,112	2	14,056	28,198	,000^d
	Residual	30,906	62	,498		
	Total	59,018	64			
3	Regression	34,028	3	11,343	27,688	,000^e
	Residual	24,990	61	,410		
	Total	59,018	64			

a. Dependent Variable: SEPA Participation
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test
c. Predictors: (Constant), SCLIN Involvement
d. Predictors: (Constant), SCLIN Involvement, SCSM Social Motivation
e. Predictors: (Constant), SCLIN Involvement, SCSM Social Motivation, SCLTR Teacher Relation

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,058	,300		6,869	,000
	SCLIN Involvement	,492	,084	,594	5,856	,000
2	(Constant)	,974	,392		2,485	,016
	SCLIN Involvement	,406	,079	,490	5,117	,000
	SCSM Social Motivation	,390	,102	,367	3,830	,000
3	(Constant)	,253	,403		,627	,533
	SCLIN Involvement	,268	,081	,324	3,331	,001
	SCSM Social Motivation	,360	,093	,338	3,879	,000
	SCLTR Teacher Relation	,348	,092	,363	3,800	,000

a. Dependent Variable: SEPA Participation
b. Selecting only cases for which Pre/Post Pre/Post = 2 Post-test

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	SCSM Social Motivation	,367[b]	3,830	,000	,437	,920
	SCSA Social Adaptability	,090[b]	,886	,379	,112	,996
	SCCO Collaboration	,331[b]	3,144	,003	,371	,815
	SCSC Self Confidence	,316[b]	3,266	,002	,383	,951
	SCLTR Teacher Relation	,395[b]	3,749	,000	,430	,769
	SCLSR Student Relation	,100[b]	,979	,331	,123	,983
	SCLCO Collaboration	,357[b]	3,651	,001	,421	,900
2	SCSA Social Adaptability	-,077[c]	-,754	,454	-,096	,809
	SCCO Collaboration	,171[c]	1,428	,158	,180	,581
	SCSC Self Confidence	,178[c]	1,652	,104	,207	,704
	SCLTR Teacher Relation	,363[c]	3,800	,000	,438	,763
	SCLSR Student Relation	-,054[c]	-,525	,602	-,067	,820
	SCLCO Collaboration	,261[c]	2,661	,010	,323	,797
3	SCSA Social Adaptability	-,100[d]	-1,074	,287	-,137	,806
	SCCO Collaboration	,087[d]	,772	,443	,099	,555
	SCSC Self Confidence	,188[d]	1,931	,058	,242	,703
	SCLSR Student Relation	-,098[d]	-1,060	,293	-,136	,807
	SCLCO Collaboration	,156[d]	1,590	,117	,201	,700

a. Dependent Variable: SEPA Participation
b. Predictors in the Model: (Constant), SCLIN Involvement
c. Predictors in the Model: (Constant), SCLIN Involvement, SCSM Social Motivation
d. Predictors in the Model: (Constant), SCLIN Involvement, SCSM Social Motivation, SCLTR Teacher Relation

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CURRICULUM VITAE

Kimberly Hunt
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Summary of Qualifications:

Over twenty (20) years' experience in education
Successful supervisor of special education teachers and assistants, and educational evaluator of children from birth through 21 years of age.
Ability to organize, manage and implement behavior plans for students with needs.
Excellent writing communication and managerial skills.,
Assist parents and teachers to meet the needs of students.

Professional Experience:
10/2009-Present: Kids First Westbury, New York –
Supervisor of Special Education
Oversee hiring of teachers and assistants for students with disabilities
Evaluate teacher progress yearly
Facilitate staff trainings on professional development
Manage operations of facility and day-to-day planning
Communicate with parents and school districts to follow students IEP
Attend CPSE, CSE, and IFSP meetings to discuss needs and goals for students
Collaborate with other professionals to ensure student's needs and placements are appropriate
Evaluate students birth – 21 years of age to determine cognitive abilities
Create and implement behavior intervention plan

8/2007-4/2008 – Director Linden SDA Daycare
Responsible for all aspects of student learning
Responsible for hiring, mentoring, and providing staff development
Managed operations of facility and day-to-day planning
Managed tuition payments, ordered food and supplies
Evaluate teacher progress yearly
Communicated with parents on student progress
Attended and presented at board meetings
Fostered a nurturing environment for staff and students
Supported and collaborated with teachers on classroom management, lesson preparations, and application

9/2006-7/2007
Special Education Itinerate Teacher- Kids First
Created lesson plans for students with varying needs
Worked with students on a 1-1 basis as per their IEP
Implement strategies to engage students in active learning and participation
Develop Individualized Educational plan (IEP) for students
Utilize and modify behavior management system
Collaborate with teachers, psychologist, social workers with the cohesiveness of the plan
Developed goals and document progress of student

9/2001-1/2005
Special Education Teacher- Valley Stream Central High School District
Designed and implemented developmentally appropriate, multi-sensory lessons and activities for students in self-contained classes ranging from 7-12 grade.
Observed and assessed individual learning needs and applied differentiated instruction to support development
Facilitated class discussions and explorations.
Conducted positive, productive communication with parents through conferences, emails, and weekly updates
Composed and completed school reports for the students with an Individualized Educational Plan
Fostered and established professional communication with parents in support of students
Supported and collaborated with teachers on classroom management, lesson preparations, and application

Education:
University of Montemorelos PhD Educational Management May 2020
Adelphi University MSEd 2001
Oakwood University BS Biology 1997