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Self-Esteem of Boys During the Transition From a Single-Sex Middle School to a Coeducational High School

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SELF-ESTEEM OF BOYS DURING THE TRANSITION FROM A SINGLE-SEX
MIDDLE SCHOOL TO A COEDUCATIONAL HIGH SCHOOL

by

PATRICK IRVEN ATKERSON

A DISSERTATION

Presented to the School of Graduate Studies and Research
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF THE INCARNATE WORD

May 2014

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Patrick Irven Atkerson

SELF-ESTEEM OF BOYS DURING THE TRANSITION FROM A SINGLE-SEX MIDDLE SCHOOL TO A COEDUCATIONAL HIGH SCHOOL

Patrick Irvén Atkerson, Ph.D.

University of the Incarnate Word, 2014

The purpose of this qualitative case study was to examine how men who attended a single-sex elementary and middle school as a boy describe their experiences following their transition to coeducational high schools and how the participants perceived those experiences influenced their global self-esteem during the first years in high school.

Two questions guided the research. 1) What changes, if any, did the men in this study perceive in their global self-esteem, as measured by the Rosenberg Self-Esteem Scale after their transition from a single-sex middle school to a coeducational high school? 2) If there were changes to the levels of global self-esteem, how much of the change do these men perceive was attributed to the influence of the different educational environments of the single-sex school and the coeducational school?

Using a qualitative case study methodology, data was collected through interviews, self-surveys, demographic questionnaires, and artifacts.

Each participant reported a decrease in their global self-esteem during the first year of attending a coeducational high school. Data analysis revealed three central themes extracted from the perceptions of the participants that influenced the reported decrease in self-esteem following the transition from a single-sex middle school to a coeducational high school: (a) a feeling of loss of both peer and adult relationships that were built over many years, (b) participants experienced

a change in values and ethics once they entered the coeducational high school, and (c) The focus of competition changed from self- improvement and team building to the goal of dominating others.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	iii
LIST OF TABLES	ix
Chapter 1: Self-Esteem During the Transition From Single-Sex Middle School to a Coeducational High School	1
Context of Study	1
Statement of the Problem.....	6
Purpose of the Study	7
Research Questions	8
Theoretical Framework of Study	8
Definition of Terms	12
Overview of Research Design	13
Significance of Study	15
Limitations of the Study.....	16
Chapter 2: Literature Review	17
History of Single-Sex Schooling	17
Academic Outcomes in Single-Sex Schooling	20
Self-Esteem in Adolescents and Academic Outcomes	25
Effects of Self-Esteem in Single-Sex and Coeducational Schools	26
Summary	31
Chapter 3: Methodology	32
Research Design	32

Table of Contents—Continued

Participant Selection	34
Data Collection	36
Validity	37
Quality Standards and Credibility	39
Protection of Human Subjects.....	39
Data Analysis	41
Chapter 4: Results	43
Validity and Credibility	44
Participant Profiles.....	44
Andrew	45
Barry	45
Craig.....	46
Drew	48
Ethan	49
Frank	50
George.....	51
Thematic Analysis.....	52
Changes in self-esteem	53
Perceptions into changes of self-esteem	54
Summary	68
Chapter 5: Conclusions and Recommendations	71
Conclusions	73

Table of Contents—Continued

Recommendations for Future Research	75
Summary	76
References	78
Appendix A Rosenberg Self-Esteem Scale.....	85
Appendix B Institutional Review Board Approval	86
Appendix C Letter to Potential Participants	87
Appendix D Participant Informed Consent Form	88

LIST OF TABLES

1. Findings on Academic Outcomes	22
2. Systematic Review of Literature findings on Socio-Emotional Factors.....	28
3. Rosenberg Self-Esteem Assessment Scores	54

Chapter 1: Self-Esteem During the Transition From a Single-Sex Middle School to a Coeducational High School

Context of Study

Since the passage of the No Child Left Behind Act of 2001 (NCLB) (U.S. Department of Education, 2002), American schools have been under increased accountability measures. Schools are held responsible for individual students' academic performance measured by standardized tests. "Chronically failing schools face the possibility of the ultimate consequence—they could lose their students and the state funding that accompanies them" (Greene, Winters, & Forster, 2004, p. 1125). With the increased accountability requirements, schools have looked for evidence-based research to guide and support educational changes to improve student performances and scores (Barton, 2006; Viets, 2009). One way school leaders sought to improve student academic performance was through the use of single-sex schooling (Bradley, 2009). According to the NASSPE (2012), Single-sex education refers to the education of students in an environment that consists of a single-gender, either all-male or all-female.

Single-sex schooling has become one of the fastest-growing trends in the 21st century American education system (Blechle, 2007; Mael, Alonso, Gibson, Rogers, & Smith, 2005; Riordan et al., 2008). According to the NASSPE, (2012) the number of schools in the United States offering single-sex environments has risen from around a dozen in 2002 to over 500 public schools offering at least a portion of their classes in a single-sex setting during the 2011-2012 school year.

Single-sex schools were not unusual in American history (Costlow, 2011; Meyer, 2008), but according to Meyer (2008) they had become almost nonexistent in the United States after the Title IX Legislation Act of 1972 (Title IX) was signed into law. Title IX was designed to eliminate discriminatory practices based on gender in public schools. It created a major shift in

education by mandating that schools using public funds must provide equal access for females to its institutions and activities. Schools that traditionally served a male-only student body were scrutinized and reformed because they were seen as maintaining discriminatory practices (U.S. Department of Education, 1998). Even though the laws did not require single-sex private educational institutions to change their practices, many of the private schools felt social and economic pressure to become coeducational institutions. “Single-sex schooling seemed to be dying a slow but certain death. . . . Coeducational institutions were considered more socially appropriate, liberating, and enlightened” (Meyer, 2008, “Going, Going, All but Gone” para. 6).

Title IX legislation created a steep decline in single-sex schools, but the newer legislation of NCLB (U.S. Department of Education, 2002) provided the ability for schools to reintroduce single-sex schools and classrooms. NCLB required greater accountability for schools in regards to student academic outcomes measured on standardized achievement testing, but it also gave schools increased flexibility and local control in deciding which teaching methods to use as long as they have been proven to work. More recently, under the urging of President George W. Bush, the U.S. Department of Education published amendments to the Title IX regulations that provided school districts additional flexibility in educational practices and specifically authorized single-sex programs and schools (U.S. Department of Education, 2006). President Barack Obama (2011) expanded and reinforced public policy and laws that continued to enable states to implement proven methods to improve student performance. “We can’t let another generation of young people fall behind because we didn’t have the courage to recognize what doesn’t work, admit it, and replace it with something that does. We’ve got to act now” (Obama, 2011, Presidential Speech).

Single-sex schooling in the United States. has been shown to be an effective method of instruction. Research has increased our understanding of differences in learning styles between the sexes and demonstrated academic achievement inequalities between the genders (Hubbard & Datnow, 2002, p. 109), often referred to as a *gender gap* in education (Gibb, Fergusson, & Horwood, 2008; Mael et al., 2005; Solomone, 2003; Sax, 2006a, 2006b; 2007).

The current body of research into single-sex schooling comes from different parts of the world with much of the research showing similar findings:

- Boys and girls have biological differences that create different optimum learning styles (Riordan, 1994; Sax, 2006a, 2006b).
- Providing a single-sex learning environment has a positive impact on student academic achievement scores (Gibb et al., 2008; Mael et al., 2005).
- The social and emotional health of children is not negatively impacted by single-sex educational environments (Cassidy & Ditty, 2001; Neu & Weinfeld, 2007; Riordan, 1994; Sax, 2007).

Several studies have shown the positive effects of single-sex schooling (Gray & Wilson, 2006; LePore & Warren, 1996; Martino, Mills, & Lingard, 2005; Riordan, et. al., 2008; Rowe, 2000; Wong, Lam, & Ho, 2002). Rowe (2000) stated:

The fact that girls consistently outperform boys in terms of academic progress throughout their primary and secondary schooling is well established. Same Gender Classrooms appear to be one program that will raise test scores for both boys and girls. ... Evidence suggests that during these key adolescent years, single-sex settings better accommodate the specific developmental needs of students. (p. 1)

The research into single-sex education has not been completely conclusive. Some studies into the effectiveness of single-sex school environments have reported mixed conclusions. According to Mael et al. (2005), one of the causes of the confusion and mixed results is that

much of the research used in single-sex studies is actually done on dual-academies or coeducational campuses that offer single-sex classrooms for only a limited portion of the day.

The U.S. Department of Education commissioned a systematic review of literature and studies into the subject of the effectiveness of single-sex schooling (Mael et al., 2005). The resulting trends were not clearly in support of either model of schooling, single-sex or coeducational. However, the review did state that while the evidence did not provide clear evidence in support of one system over the other, the outcomes suggest that students were either helped by single-sex schooling or there was not a significant benefit. Mael et al. (2005) state:

A few trends are apparent across all outcomes. The preponderance of studies in areas such as academic accomplishment (both concurrent and long term) and adaptation or socioemotional development (both concurrent and long term) yields results lending support to [single-sex] schooling. . . . It is more common to come across studies that report no differences between [single-sex] and [coeducational] schooling than to find outcomes with support for the superiority of [coeducational]. . . academic achievement scores, self-concept, and long term indicators of success, there is a degree of support for [single-sex] schooling. (General Trends section, para. 1)

While single-sex education is still being debated, it is a reality that single-sex schools are growing in numbers and being used as an option in schools in the United States (Blechle, 2007; Mael et al., 2005; Riordan et al., 2008). No educational reform is truly isolated from all others, which is why another area of educational interest is the impact of school environment on students' self-esteem (Bong & Skaalvik, 2003).

Along with single-sex education, a great amount of attention has also been given to issues related to adolescent self-esteem in Western nations. "The heightened importance that self-esteem has taken among school personnel and parents has spawned a generation concerned with making sure their children develop positive self-esteem" (Booth & Gerard, 2011, p. 629). The perceived importance of a child's self-esteem is understandable since studies have indicated there is a strong positive correlation between adolescent students' self-esteem and academic

motivation and success (Booth & Gerard, 2011; Ferkany, 2008; Trautwein, Koller, & Baumert, 2006; Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991, 1994).

Self-esteem has been viewed as a component of mental health for some time and associated with how a person feels, thinks, and behaves (Kling, Hyde, Showers, & Buswell, 1999). Individuals are generally motivated by and put effort and energy into protecting and enhancing their self-esteem (Vignoles, Golledge, Regalia, Manzi, & Scabini, 2006). Self-esteem is an important aspect of an adolescent's transition to young adulthood and affects many areas of their life including academics (Erol & Orth, 2011; Lerner & Galambos, 1998; Wigfield et al., 1991). Adolescence is the period of a person's life when one experiences a transition in biological, cognitive, physiological, and social changes from child-like characteristics to adult-like characteristics (Lerner & Galambos, 1998). During this time, children experience social and biological changes associated with puberty, while at the same time experiencing an academic transition between school settings. These changes are believed to have a significant impact on students' self-esteem and self-perception (Wigfield et al., 1991). A recent review of literature of self-esteem in adolescents stated there have only been a few longitudinal studies looking at self-esteem in adolescents, and those studies provided mixed results (Erol & Orth, 2011). Some studies suggested self-esteem gradually increased during the transition to young adulthood while others suggested no change or even a decrease in self-esteem during the same time period.

Large scale studies into gender differences between boys and girls in self-esteem have reported the rate of problems related to self-esteem are greater for females than males (Kling et al., 1999; Resnick et al., 1997). However, the research does not suggest that boys do not have self-esteem problems (Kling et al., 1999). While many studies have mixed results in the perception of self-esteem between males and females, the study conducted by Rosenberg,

Schooler, and Schoenbach (2012) indicated there is a significant and positive correlation between a student's self-esteem and their academic performance in school regardless of gender. The difference in self-esteem between boys and girls has been referred to as a "gender-gap" in self-esteem (Smyth, 2010). Sullivan (2009) reported that the gender-gap in self-esteem is reduced for students who attend a single-sex school setting when compared to similar populations in a coeducational setting. With the knowledge that single-sex schooling is a growing trend in the United States education system and as more children are exposed to this type of educational environment, it is important for researchers to continue learning as much as possible about the cognitive and affective affects single-sex schools have on children.

Statement of the Problem

Since the passage of NCLB (U.S. Department of Education, 2002), American schools have been under increased accountability measures. Schools are held responsible for individual student's academic performance measured by standardized tests. "Chronically failing schools face the possibility of the ultimate consequence—they could lose their students and the state funding that accompanies them" (Greene et al., 2004, p. 1125). With the increased accountability requirements, schools have looked for evidence-based research to guide and support educational changes that will result in improved student performances and scores (Barton, 2006; Viets, 2009).

With research showing a positive correlation between a student's self-esteem and academic success (Rosenberg et al., 1989), it is understandable that schools would consider self-esteem an important aspect to increasing student academic performance. When a child's level of self-esteem is higher, his or her academic motivation and performance also tends to be higher (Wigfield et al. 1991). Studies have shown that students attending a single-sex school have

reported positive effects in self-esteem (Granleese & Joseph, 1993) and in performance (Mael et al. 2005).

Single-sex schooling is a growing trend in American education looking to provide a supportive environment for the differing educational needs of students in order to increase student performance (Riordan, 2002). Single-sex schooling has been shown to have a positive impact on academic performance for males and females (Mael et al., 2005) and there appears to be a positive impact on self-esteem, especially for males (Marsh, Owens, Myers, & Smith, 1989).

Since the changes in educational legislative policy and the increase of single-sex environment are relatively recent, there is a weakness in research into the experiences of individuals in single-sex schools. The weakness is even greater when looking at research into the experiences of students of single-sex schools at the elementary and middle school level. Furthermore, there is a weakness in qualitative research into student self-esteem after leaving the single-sex school environment. In order for single-sex schools to better understand their student population and their unique needs, more research should be conducted into the experience of students and issues pertaining to single-sex education. This study adds to the body of knowledge about the experiences of single-sex students by exploring the perceptions of changes to self-esteem of males related to the change in academic environments from a single-sex middle school to a coeducational high school.

Purpose of the Study

The purpose of this qualitative case study was to examine how men who attended a single-sex elementary and middle school as a boy describe their experiences following their transition to coeducational high schools and how the participants perceived those experiences influenced their global self-esteem during the first years in high school.

Research Questions

This research addressed two primary questions: a) How do men who attended a single-sex elementary and middle school in the southern United States describe their experiences while transitioning to a coeducational high school b) How do the participants perceive those experiences influenced their global self-esteem during the first years in high school?

The following questions were used to guide iterative open-ended questions to explore the central phenomenon.

1. What changes, if any, did the participants in this study perceive in their global self-esteem as measured by the Rosenberg Self-Esteem Scale (see appendix A) after their transition from a single-sex middle school to a coeducational high school?
2. If there were changes to the levels of global self-esteem, how much of the change do the participants attribute to the influence of the different educational environments of the single-sex school and the coeducational school?

Theoretical Framework of Study

Self-esteem theory as described by Rosenberg (1979) provided a theoretical framework that guided this study as it examined changes in the perception of self-esteem of the participants. The Rosenberg Self-Esteem Scale is a widely used tool to measure self-esteem specifically for adolescents and was utilized in this study during interviews as an aide in discussion and memory recall. By using Rosenberg's work on self-esteem, a better understanding was created of the internal and external factors affecting each participant's self-esteem.

Self-concept and self-esteem. Self-concept and self-esteem are two psychological terms that are often used interchangeably. However, there is a distinction between the terms. Self-concept includes what a person knows about himself, while self-esteem includes the attitudes

and feelings a person has towards those concepts (Rosenberg, Schooler, Schoenbach & Rosenberg, 1995). Campbell (1990) explains that a person's self-concept is an overarching schema and is created by individual evaluations and perceptions of interactions with the external world called self-esteem. The evaluations and interactions that create self-esteem are the building blocks that creating an individual's overall picture of himself, or self-concept.

Rosenberg (1979) describes self-concept as “the totality of the individual's thoughts and feelings having reference to himself as an object” (p. 7). The self-concept is a picture that the person has of himself. It is not the real self. Rosenberg explains that it is a distinctive ability belonging only to humans — that we can stand outside of our self and describe our self, judge our self, feel pride, shame, and guilt: “The lion may be king of the jungle, but he puts on no airs before his jungle inferiors, any more than the rabbit blushes at his timidity” (p. 7).

Rosenberg (1979) explains that a person's self-concept, or the totality of thoughts and feelings a person has about himself, is created in part by broad areas termed as the *extant self*. The extant self is described as what an individual sees when he looks at himself and comprises three things: (a) social identity, (b) dispositions, and (c) physical characteristics. Social identity describes any of the categories and classifications an individual has in society that are used to identify him. Some of the social identities include sex, race, age, gender, religion, and family birth order. Social identity also includes occupation, a person's affiliations to organizations, and any other category used to identify a person. This identity is externally assigned. Most of the social identities are assigned by other people in society to distinguish one person from another. Dispositions, on the other hand, are primarily internally created references, but are greatly influenced by the external constructs. These include attitudes, traits, abilities, values, and preferences. Physical characteristics are characteristics that describe the physical being. These

include perceptions of body image and physical qualities. When a person has a conflict in any of these three areas, it can create a self-esteem crisis and affects self- confidence. It is not uncommon for people to experience low self-esteem when their beliefs about themselves are different from their physical being.

Rosenberg (1979) asserts that there are four general principles in understanding differences in an individual's self-esteem that creates that person's self-concept: (a) reflected appraisals, (b) social comparison process, (c) self-attribution, and (d) psychological centrality (p. 81).

Reflected appraisals. The principle of reflected appraisals refers to the idea that a person's sense of self is primarily constructed by the responses a person receives from others. "This principle holds that people, as social animals, are deeply influenced by the attitudes of others towards the self and that, in the course of time, they come to view themselves as they are viewed by others" (Rosenberg 1979, p.63). The principle of reflected appraisals is not simply adopting the self-attitude from what others think. It actually is created by the person's perception of other's attitudes (Rosenberg 1979, p. 65). In other words, it is not what people think about us. It is what we think people think about us.

Social comparisons. The second principle fundamental in the formation and maintenance of self-concept is social comparisons. "Human beings learn about themselves by comparing themselves to others" (Pettigrew, as cited in Rosenberg, 1979, p. 67). There are two types of social comparison used to describe this principle. The first is a marking of superior or inferior to others based on a criterion of merit or virtue. A person's self-concept can shift without any physical transformation. A person can decide he or she is the smartest, fastest, strongest, dumbest, slowest, or weakest all by shifting the criterion used to make the judgment. The second

type of social comparison a person makes is based on a normative aspect. “Here the issue is not whether one is better or worse but whether one is the same or different” (Rosenberg, 1979, p. 68) [emphasis original]. Self-concept and self-esteem are greatly impacted by our choices of whom to use as our marker for social comparison.

Self attribution. The third principle of self-concept formation is self-attribution. In this principle, an individual draws conclusions about his or her physical and emotional abilities based on psychological and social information. In other words, individuals attribute their own abilities based on an external source observing his or her actions and making a judgment on the results. “An example is the child who consistently does well on spelling tests and consequently concludes he is a good speller; this conclusion is not primarily reached by consulting his inner experiences but by observing his behavior or its outcomes” (Rosenberg, 1979, p. 71). The principle of self-attribution assumes that an innate belief in one’s own abilities is not enough to form self-concept. It is necessary to observe the effects that his actions and behaviors have on others with the results being used in constructing self-concept.

Psychological centrality. The fourth principle Rosenberg (1979) discusses is psychological centrality. This principle of self-concept shows the interconnectedness of internal and external factors. Rosenberg states, “this principle holds that the self-concept is not a *collection* but an *organization* of parts, pieces, and components and these are hierarchically organized and interrelated in complex ways” (p. 73). This statement explains that individuals place a different emphasis and degree of importance on the previous three principles. Simply because a person considers himself deficient in one area does not mean he will have a lowered self-esteem. In addition to whether a person performs well or poorly, is better or worse than others, it also depends on how much the person values that performance or the source of

evaluation. Rosenberg states, “It is thus entirely possible for each person to judge himself favorably by virtue of selecting his own criteria for judgment” (p. 74). In other words, people can have varying abilities in the same area and maintain a high self-esteem because they value the things they are good at more than they value those things they are not good at doing.

Each of the four principals describes how a person develops self-esteem. It is when a person evaluates their self-esteem in many areas they form a schema about themselves the self-concept is created.

Definition of Terms

Adolescence: The period of a person’s life when they experience a transition in biological, cognitive, physiological, and social changes from child-like characteristics to adult-like characteristics (Lerner & Galambos, 1998).

Coeducational school: Schools that do not separate students based on gender; both female and male students interact in all subjects (Riordan et al., 2008).

Domain specific self-esteem: Relates to one’s self-esteem in regard of a particular area, such as sports or a subject in school (Rosenberg, 1979).

Dual-academies: Elementary, secondary, or postsecondary level schools in which males and females attend the same school facilities, but all classes are separated by sex (Riordan et al., 2008).

Gender: Refers to the attitudes, feelings, and behaviors that a given culture associates with a person’s biological sex. Behavior that is compatible with cultural expectations is referred to as gender-normative; behaviors that are viewed as incompatible with these expectations constitute gender non-conformity (American Psychological Association, 2010).

Global self-esteem: The individual's positive or negative attitude towards the self as a totality (Rosenberg et al. 1995).

Self-concept: The totality of a complex, organized, and dynamic system of learned beliefs, attitudes, and opinions that each person holds to be true about his or her self (Purkey, as cited in Mael et al., 2005).

Self-esteem: How a person feels about himself or herself, good or bad (U.S. Department of Health and Human Services, n.d.).

Sex: Refers to a person's biological status and is typically categorized as male, female, or intersex (i.e., atypical combinations of features that usually distinguish male from female). There are a number of indicators of biological sex including sex chromosomes, gonads, internal reproductive organs, and external genitalia (American Psychological Association, 2010).

Single-sex school: A single-sex school can be any level of education and also includes dual academies, where males and females attend the same school but are separated by sex. The definition of single-sex schooling does not include coeducational schools that provide some separate classes for males and females in only some subjects (Riordan et al., 2008).

Overview of Research Design

A qualitative multiple-case study design was used for this study. Qualitative research is a systematic inquiry in a natural setting utilizing people's words as the primary source of data (Marshall & Rossman, 1989). For this study, it was important to utilize qualitative research methods in order to understand the meaning and experiences of the participants and the meaning they made from those experiences (Denzin & Lincoln, 2005). Qualitative research is rooted in the belief that reality is constructed by individuals as they interact with their world (Merriam, 1998, Patton, 1990).

The qualitative case study method is used when the phenomenon being studied is not easily separated from the context (Yin, 2003). In this study, the phenomenon of perceived changes in self-esteem could not be separated from the context of the educational environment. Creswell (1998) states that case studies are “an exploration of a ‘bounded system’ of a case or multiple cases over time through detail, in depth data collection involving multiple sources of information rich in context” (p. 61). This research looked at the perceptions of individuals concerning the impact of experiences in the bounded system of males in the southern United States who attended a single-sex elementary and middle school before transferring to a coeducational high school within the past ten years.

A multiple-case study approach allows the researcher to explore differences and similarities between cases enabling comparisons to be drawn (Yin, 2003). A multiple- case study approach for this study was chosen because the use of multiple cases can strengthen the results of a study by replicating and pattern-matching, thus increasing confidence in the robustness of the theory (Yin, 1993). In a multiple-case study the purpose is to analyze the cases as individual cases within their own context, then making comparisons to other cases. This is opposed to a single-case study using multiple cases to study a phenomenon where the study is looking at embedded units which allows the researcher to understand one unique, extreme, or critical case (Yin, 2003).

Merriam (1998) identified three benefits of using a case study approach are its characteristics of being particularistic, descriptive, and heuristic. Merriam (1998) explained the meanings of these three characteristics. Particularistic is the ability to examine a singular instance with the possibility to illuminate larger and more general problems. Descriptive refers to using hindsight to describe complexities of situations that are relevant in the present; and heuristic

reflects a case study's ability to explain the background of an issue and explore alternatives with a potential for applicability to other and more current situations. This study was particularistic by examining the perceptions of a few individuals on self-esteem with the possibility that those perceptions may increase our understanding of the experiences of students being educated in a single-sex school and may be applicable to others in a similar situation. This study was descriptive, in that it used the participants' reflections and hindsight to describe the complexities of their past experiences and to construct rich and thick explanations of their experiences. Thirdly, this study was heuristic in the sense it looked at the meaning the participants made of their experiences that may be applicable to current educational practices and understanding.

The qualitative research paradigm is the best fit for this study, because the best type of instrument for data collection and interpreting meaning of an individual's experience in context is the use of a human researcher using interviews, observations, and analysis. Each of these is central to qualitative research and to this research (Merriam, 1992). This study interpreted the meaning of the participants' experiences through the analysis of interviews.

Significance of Study

This study is significant because it strengthens the body of knowledge pertaining to the experiences of single-sex school students and helps to correct the weakness in the literature of male students' perceptions on self-esteem who attended a single-sex school as an elementary and middle school student before transferring to a coeducational high school.

This study has implications for parents, students, and administrators of both single-sex and coeducational schools. For example, parents and administrators may use the information from this study in deciding if a single-sex schooling environment would be beneficial for their students' needs. Also, since single-sex schooling is a growing trend in education, this study may

have implications for both public and private school administrators of coeducational schools who are receiving students transferring from a single-sex environment. This study will help them understand the experiences of male students who attended a single-sex school and the students' perceptions about the transition from a single-sex setting to a coeducational setting in order to support students in making the transition.

Limitations of the Study

This study was limited to one private school in the southern sector of the U.S.. Participants selected to participate in this study were limited to individuals who graduated from a single-sex (male) middle school within the last ten years. Interviews were conducted with only those who responded and volunteered to participate. This study does not assume its results are generalizable to all students who transferred from single-sex schools to coeducational schools. The study was conducted with a limited number of participants in a limited section of the United States whose experience may not be sufficiently similar to others to allow it to be generalized to all students. However, it is the intent that readers may transfer the experiences of the participants from this study and apply it in other situations. Erickson (1986) explains that what is learned from a particular case can be transferred to similar situations and that it is the reader, not the researcher, who determines what can be applied to the reader's context.

Chapter 2: Literature Review

The following section reflects a review of current literature in several key areas pertaining to the research questions. This review of literature begins with the history of single-sex schooling in order to understand the historical context and the legality of the practice of separating the sexes in schools. The next section describes the arguments and research concerning the effects on academic outcomes of single-sex schooling. The third section discusses the current understanding of the role of self-esteem in academics and the research that has already been conducted on the impact on perceptions of male students who experienced a transition from a single-sex middle school to a coeducational high school.

This literature review provides an understanding and justification for the current study. This literature review illustrates a weakness in the literature in the specific area of males educated in a single-sex elementary environment before transitioning to a coeducational high school, specifically the effects on self-esteem of those individuals.

History of Single-Sex Schooling

Since the passage of NCLB (U.S. Department of Education, 2002), American schools have been under increased accountability measures. Schools are held responsible for individual students' academic performances as measured by standardized tests. "Chronically failing schools face the possibility of the ultimate consequence—they could lose their students and the state funding that accompanies them" (Greene et al., 2004, p. 1125). With the increased accountability requirements, schools have looked for evidence based research to guide and support educational changes to improve student performances and scores (Barton, 2006; Viets, 2009). One way leaders in education are looking to improve student academic performance is through the use of single-sex schooling (Bradley, 2009). Single-sex education refers to the education of students in

an environment that consists of a single-gender, either all-male or all-female environment (NASSPE, 2012). A single-sex school can be any level of education and includes dual academies where males and females attend the same school but are separated by sex. The definition of single-sex schooling does not include coeducational schools that provide some separate classes for males and females in only some subjects (Riordan et al., 2008).

Single-sex schooling has become one of the fastest-growing trends in the 21st century American education system (Blechle, 2007; Mael et al., 2005; Riordan et al., 2008). There are inherent challenges for educators to adapt to gender differences and to improve learning for both boys and girls (Baron-Cohen, 2003; Blum). According to the National Association of Single-sex Public Education (2012), the number of schools offering single-sex environments has risen from about a dozen in 2002 to over 500 public schools in the United States for the 2011-2012 school year.

Single-sex schools were not unusual in American history (Costlow, 2011; Meyer, 2008), but they had become almost nonexistent in the United States after the Title IX Legislation Act of 1972 (Title IX) was signed into law (Meyer, 2008). Title IX was designed to eliminate discriminatory practices based on gender in public schools. It created a major shift in education by mandating that schools using public funds must provide equal access for females to its institutions and activities. Schools that traditionally served a male-only student body were scrutinized and reformed because they were seen as maintaining discriminatory practices (U.S. Department of Education, 2009).

Title IX effectively changed the face of education using the judicial system through landmark court cases like the U.S. Supreme Court case *United States v. Virginia* (1996). The U.S. Justice Department challenged the legality of Virginia Military Institution's (VMI) policy

that prohibited admitting females to its publicly funded school. Even though the Court's majority opinion did not require VMI to become coeducational and stressed that their ruling was less about the issue of single-sex education and more to the absence of VMI's effort to provide a truly comparable opportunity for women. VMI decided to open its enrollment to both men and women (Solomone, 2003).

Most publicly funded educational institutions serving a single-sex student body which had not already become coeducational followed VMI's example and shifted from an all-male or all-female student body to become coeducational, allowing both male and female students (Solomone, 2003). Even though the laws did not require single-sex private educational institutions to change their practices, many of the private schools felt social and economic pressure to become coeducational. "Single-sex schooling seemed to be dying a slow but certain death. . . . Coeducational institutions were considered more socially appropriate, liberating, and enlightened" (Meyer, 2008, "Going, Going, All but Gone" para. 6).

Title IX legislation may have created a steep decline in single-sex schools, but the newer legislation of NCLB (U.S. Department of Education, 2002) provided an opportunity for schools to reintroduce single-sex schools and classrooms. NCLB provided two major tenants that supported allowing single-sex environments for students. It required stronger accountability for schools from student academic results, but it also gave schools increased flexibility and local control in deciding which teaching methods to use as long as the methods had been proven to work (U.S. Department of Education, 2002).

More recently, in 2006, under the urging of President Bush, the U.S. Department of Education published amendments to the Title IX regulations that provided school districts additional flexibility in educational practices and specifically authorized single- sex programs

and single-sex campuses (U.S. Department of Education, 2006). These amendments have revitalized single-sex schooling as an option in education.

Challenges to the legality of single-sex education have continued to be raised in the courts. The landmark case *A.N.A v. Breckinridge* (2011) argued that single-sex schooling is a violation to the tenets of Title IX. This idea was denied by the courts. The U.S. Federal Court found that providing separate schools or classrooms for students based on sex is not in violation of current law. The Federal Court stated:

No legal authority supports the conclusion that optional single-sex programs in public schools are *ipso facto* injurious to the schools' students. Unlike the separation of public schools by race, the separation of students by sex does not give rise to a finding of constitutional injury as a matter of law (Answer A. section, para. 3).

With the recent rulings upholding the legality of single-sex schooling in the public and private sectors along with support through research, there has been a growth in its practice in the U.S.. According to the NASSPE (2012), there were only a dozen schools offering single-sex classrooms in 2002. For the 2011-2012 school year, there were approximately 506 public schools in the United States offering single-sex educational opportunities, and 116 of them were single-sex campuses rather than dual-academy settings offering some coeducational classes and some single-sex classes.

Academic Outcomes in Single-Sex Schooling

Much of the research conducted in single-sex schooling comes from outside the United States. Australia, New Zealand, Britain, and parts of Africa have produced many of the studies in single-sex education. The U.S. is seeing a growth in the number of single-sex schools and must rely on studies from other parts of the world for research related to single-sex schooling.

The U.S. Department of Education recently commissioned a systematic review of literature (Mael et al., 2005) that is widely referenced in current literature of single-sex

schooling. The review looked at studies that reported comparisons of several factors about the effectiveness between single-sex and coeducational schools. The study began with an exhaustive search of both published and unpublished data. The search yielded 2,221 citations. The review then narrowed the results using two parameters: (a) the study must be in English, and (b) the study must have been conducted in westernized countries servicing elementary, middle school, or high schools that were completely segregated by sex for all classes. Studies of dual-academies and coeducational schools using single-sex classes were eliminated from the review. This brought the citations to 379 studies that fit the two initial requirements. Two additional requirements further narrowed the applicable studies: (c) the study must compare single-sex schools with coeducational schools, and (d) the study had to meet basic standards of validity and reliability and control for biases. This limited the acceptable studies to only 112 studies with only two of them utilizing qualitative methodology. What seemed to be a substantial amount of research about single-sex schooling was quickly narrowed down to a comparably limited number of studies that met the criteria required to be included in the review of literature comparing single-sex schooling with coeducational schooling.

One of the sections included in the review analyzed studies that looked at academic outcomes using achievement testing scores in the areas of mathematics, science, English, and social studies to compare single-sex schools and coeducational high schools. Table 1 shows the results of the systematic review of studies reporting a comparison of data concerning the academic accomplishments of students in the two types of schools. Table 1 lists the total number of outcomes and the percentages that supported single-sex schooling, supported coeducational schooling, yielded null results, or yielded mixed results (supporting both single-sex and coeducational schooling). If the findings of a study supported single-sex schooling for a variable,

it was coded pro-single-sex. If the findings of a study supported coeducational schooling, it was coded pro-coeducational. When a study reported no statistically significant difference between single-sex and coeducational schools, it was coded null. A study was coded mixed if the study found significant differences for different subgroups. For example, a study was coded mixed if the study reported a positive result for boys, but not for girls, or if certain grade levels showed a benefit using single-sex schooling while other grade levels showed a disadvantage.

Table 1

Findings on Academic Outcomes

Outcome Measure Category and Topic		Percentage of Outcomes			
	Total Number of Studies	Pro Single-sex	Pro Co-educational	Null	Mixed
Concurrent Academic Accomplishments					
All subject achievement test scores	9	67%	11%	22%	0%
Mathematics achievement test	14	22%	0%	56%	22%
Science achievement test scores	8	25%	0%	62%	13%
Verbal/English achievement test	10	30%	0%	70%	0%
Grades	1	0%	0%	100	0%
Social Studies achievement test	1	100%	0%	0%	0%
Subtotal	43	35%	2%	53%	10%
Long-Term Academic Accomplishment					
Post Secondary Scores	2	50%	0%	50%	0%
College Graduation	1	0%	0%	100%	0%
Graduate School Attendance	1	0%	0%	100%	0%
Subtotal	4	25%	0%	75%	0%

Note. Adapted from “Single-sex versus Coeducational Schooling: A Systematic Review,” F. Mael, A. Alonso, D. Gibson, L. Rogers, and M. Smith, 2005, *U.S. Department of Education, Office of Planning, Evaluation and Policy Development*, p. xiii-xiv.

The studies in the systematic review did not show definitive results. Among the concurrent academic accomplishment outcomes, 35% favored single-sex schooling, 53% were null, 10% favored coeducational schooling, and 6% yielded mixed results. However, the analysis of the results appears to show a trend across all areas of academic accomplishment. The studies reported results that either supported single-sex schooling or found no significant difference

between single-sex schooling and coeducational schooling. Only a limited amount of studies (11%) yielded significant results in favor of coeducational schooling.

Using Mael et al.'s (2005) review, an additional parameter was added to control for literature that was specifically relevant to this study. When controlling for studies that included all-male single-sex schools, the results yielded consistent results to those listed in Table 1. The studies with results favoring coeducational schooling over single-sex schooling both utilized all-male schools. However, the majority of studies showed support for single-sex male schooling or showed no significant difference between male students in the two settings in both short term and long term academic achievement. The first study that reported males in coeducational schools outperformed their counterparts in single-sex schools was conducted by Baker, Riordan, and Schaub (1995). They found a significant difference in Mathematics Achievement Test Scores between males in single-sex schools versus those in coeducational schools. The results supporting coeducational schools were found in three of the four countries in the study: Belgium, Thailand, and Japan. The fourth country, New Zealand, found no differences between students in single-sex schools versus those in coeducational schools. A second study by Lee and Lockheed (1990) of single-sex schools in Nigeria reported that males in coeducational settings outperformed those in single-sex schools, but only in the area of mathematics.

A more contemporary 25 year longitudinal study conducted by Gibb et al. (2008) of students in New Zealand examined the effects of single-sex and coeducational schooling on gender differences in educational achievement. The results yielded significant correlations between a gender and schooling type. Specifically, girls performed better than boys in coeducational settings while boys who attended single-sex schools slightly outperformed girls in both single-sex and coeducational schools. This study continued into tertiary education and

found that students (both male and female) educated in single-sex schools while young continued to benefit at the university setting as well. Malacova (2007) found similar results with British high school students. Malacova reported that both boys and girls benefit from single-sex high school with girls receiving slightly more of an advantage than their counter parts in coeducational schools. These results support the findings of those studies in the systematic review concerning effects of single-sex schooling and show positive benefits continue into tertiary education.

A few trends can be seen in the literature concerning studies of single-sex schools. Firstly, the majority of studies yield results lending support to the benefits of single-sex schooling. It is more common to find studies that show single-sex schooling is beneficial or find there is not a significant difference between single-sex and coeducational schooling than it is to find studies that demonstrate a significant benefit correlated to student academic outcome in coeducational schooling over single-sex schools.

A second trend is that the overwhelming majority of studies are conducted with high school students and often high schools with religious affiliations. Therefore, there are limited opportunities to look at effects of single-sex schooling in the public or the elementary and middle school levels.

A third trend is that it is more common to study all-girl schools than all-boy schools. Mael et al.'s (2005) review of literature showed studies of all-girl schools outnumbered all-boy school studies almost 4:1. There were a greater number of studies of all-girl schools (76) compared to studies of all-boy schools (20).

The clear lack of quality studies involving elementary and middle school all-boy single-sex schools in the United States demonstrates a weakness in our existing knowledge and

demonstrates a need for studies that considers students in the lower grades into the effects of single-sex education.

Self-Esteem in Adolescents and Academic Outcomes

According to the U.S. Department of Health and Human Services (n.d.), self-esteem is how a person feels about himself or herself, good or bad, and manifests itself in many ways, especially in self-confidence. High self-esteem is claimed to have a variety of behavioral benefits including: greater educational achievement (Marsh, Bryne, & Young, 1999), resistance to peer pressure (Baumeister, Campbell, Krueger, & Vohs, 2003), greater sense of autonomy, independence, and responsibility-taking (Knowles, 1975), willingness to attempt new tasks (Erol & Orth, 2011), ability to constructively handle positive and negative feedback from others (Granleese & Joseph, 1993), and greater academic success (Giunta et al., 2013). “Self-esteem may have significant consequences for life outcomes” (Erol & Orth, 2011, p. 607). These behaviors that are attributed to a person with high self-esteem are also educationally desirable and can play a role in a student’s success in school. Ferkany (2008) states, “self-esteem is important to the motivation children need in order to be successful in school... facilitating self-esteem is an important educational priority” (p. 130). Bong and Skaalvik (2003) further explain the importance of positive self-esteem in students for academic performance:

Positive self-concept lead students to set challenging yet attainable academic for themselves, feel less anxious in achievement settings, enjoy their academic work more, persist longer on difficult tasks, and, overall, feel better about themselves as a student. (p. 32)

Self-esteem has become an important educational issue. “The attention given to adolescent self-esteem in the United States and other Western nations has resulted from a consistent pattern of educational studies revealing the academic and social benefits derived from a healthy sense of self” (Booth & Gerard, 2011).

Self-evaluations have been used in psychological inquiry for well over a century. Self-esteem evaluations typically fall into two categories, global and domain specific. Global self-esteem is distinguished from domain specific by the unit of analysis. Domain-specific self-concept evaluations generally look at only one specific area of a person's self-evaluation, for example performance in simply math or reading, while global self-esteem defines itself as considering "the totality of the individual's thoughts and feelings having reference to himself as on object" (Rosenberg, 1979, p. 7). This study, and literature review, focused on issues connected to the participants' global self-esteem.

Effects of Self-Esteem in Single-Sex and Coeducational Schools

As described previously, the U.S. Department of Education commissioned a systematic review of literature (Mael et al., 2005) looking at comparisons between the effectiveness of single-sex schools and coeducational schools. Table 2 shows the results of the systematic review of studies that reported a comparison of data concerning attitudinal and socioemotional outcomes of students in the two types of schools. Table 2 lists the total number of outcomes and the percentages that supported single-sex schooling, supported coeducational schooling, yielded null results, or yielded mixed results (supporting both single-sex and coeducational schooling). If a study's findings all supported single-sex schooling for a variable, it was coded pro-single-sex. If a study's findings all supported coeducational schooling, it was coded pro-coeducational. When a study reported no statistically significant difference between single-sex and coeducational schools, it was coded null. A study was coded mixed if the study found significant differences for different subgroups. For example, a study was coded mixed if the study reported a positive result for boys, but not for girls, or if certain grade levels showed a benefit using single-sex schooling while other grade levels showed disadvantage.

According to Purkey, “self-concept is defined as “the totality of a complex, organized, and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his or her personal experience” (as cited in Mael et al. 2005, p. 36). Seven studies met the criteria to be included in the systematic literature review used high school samples to examine the relationship of self-concept to the type of schooling. Three of the seven studies (Lee & Bryk, 1986; Marsh et al., 1989; Riordan, 1990) specifically focused on comparison of males in single-sex and coeducational high schools. Two of the three (67%) studies yielded null results, and the other study (33%) reported results in favor of single-sex schooling.

Self-esteem is described as “pride in one’s self; holding a good opinion of one’s self; a feeling of pride in oneself, or the quality of being worthy of esteem” (Mael et al. 2005, p. 39). Six studies were included in the systematic review of literature that examined the relationship between single-sex schooling and self-esteem. Three of the six studies specifically compared single-sex schooling and coeducational schooling for males. Two of the three studies (67%) Sanders (1992) and Riordan (1994) reported findings in favor of coeducation; the third study conducted by Brutsaert and Bracke (1994) reported findings in favor of single-sex schooling.

There are issues to take into consideration when using Sanders’s and Riordan’s studies as sources to strengthen the arguments for the benefits of single-sex education. The Sanders (1992) study was reported as being in favor of coeducational schooling. However, the study did not control for many variables and, therefore, it may be difficult to draw conclusive findings. The study compared two schools which had greatly different student demographics and taught using different curriculums. The results reported that there was no significant difference in self-esteem among fourth-graders and fifth-graders, but did find that male students in the coeducational third grade reported higher levels of self-esteem.

Table 2

Systematic Review of Literature findings on Socio-Emotional Factors

<i>Outcome Measured Category and Topic</i>	<i>Percentage of Outcomes</i>				
	Total Outcomes	Pro-single-sex	Pro-coeducational	Null	Mixed
Concurrent Adaptation and Socio-Emotional Development					
Self-concept	7	57%	0%	43%	0%
Self-esteem	6	17%	33%	50%	0%
Locus of control	5	60%	0%	40%	0%
Subject performance	14	36%	14%	43%	7%
Educational aspirations	3	67%	0%	33%	0%
Career aspirations	2	100%	0%	0%	0%
Delinquency	4	50%	0%	50%	0%
Attitudes toward school	5	20%	20%	20%	40%
Time spent on homework	2	50%	0%	50%	0%
Attitudes toward working women	1	100%	0%	0%	0%
Subtotal	49	45%	10%	39%	6%
Long-Term Adaptation and Socio-Emotional Development					
School completion	1	100%	0%	0%	0%
Postsecondary success	1	0%	0%	100%	0%
Postsecondary unemployment	2	50%	0%	50%	0%
Eating disorders	1	0%	100%	0%	0%
Choice of college major	1	100%	0%	0%	0%
Sex role stereotyping	2	50%	50%	0%	0%
Political involvement	1	100%	0%	0%	0%
Percent married to first spouse	1	0%	0%	100%	0%
Subtotal	10	50%	20%	30%	0%
Perceived School Culture					
Climate for learning	1	100%	0%	0%	0%
Opportunities for leadership roles	2	50%	0%	50%	0%
Overall school environment	1	0%	0%	100%	0%
Subtotal	4	50%	0%	50%	0%
Subject Satisfaction					
Satisfaction with school environment	1	0%	100%	0%	0%
College satisfaction	1	100%	0%	0%	0%
Subtotal	2	50%	50%	0%	0%

Note. Adapted from “Single-sex versus Coeducational Schooling: A Systematic Review,” F. Mael, A. Alonso, D. Gibson, L. Rogers, and M. Smith, 2005, *U.S. Department of Education, Office of Planning, Evaluation and Policy Development*, p. xiii-xiv.

Another variable that may impact studies into the effectiveness of single-sex schooling is illustrated by Brutsaert and Bracke (1994) who compared 1,130 male Catholic elementary school students who were using the same curriculum and had similar demographics. It found that males in single-sex schools reported higher self-esteem than boys in coeducational schools. The authors of the study suggested that the difference may have been influenced by the greater number of male faculty members in the all-boy school, which has been suggested as a factor influencing the success of single-sex boy schools by other studies. It is unclear to what degree this variable impacted the results and single-sex schooling as a whole.

An additional variable that may impact the conclusiveness of research on single-sex schooling is that some researchers include data from coeducational schools with single-sex classrooms or data from dual-academies with single-sex schools. Recent studies that report findings into the impact of single-sex education actually use dual-academies or coeducational schools that offer only part of the school's classes taught in a single-sex environment. In these studies, students are in a single-sex environment for only one or two classes. Students are in a coeducational setting the remainder of the school day. A trend in literature indicates that studies using dual-academies or coeducational schools with single-sex classes for sampling often return mixed, null, or non-favorable results for single-sex environments. One large flaw in these studies is that they are not able to control for the variable that the students are not in a single-sex environment all day. The studies that compared students who attended campus-wide single-sex schools yielded favorable results more often than non-favorable results. This suggests that in order for students to benefit from the separation of sexes in school, it needs to be a school-wide program and not a campus with both sexes in the same facility.

While there are many studies on the impact of self-esteem on academics and other aspects of life, the current review of literature only found one study examining the perception of boys who transitioned from a single-sex schooling environment to a coeducational environment. Yates (2011) conducted a three year longitudinal study looking at a non-government, Australian all-boy school and a non-government Australian all-girl school that consolidated to create one coeducational school. Yates's study found that boys in the elementary level reported a significant increase in their perceptions of personalization of instruction and teacher concern for individual welfare after the second year of the introduction of coeducation. Even though Yates asserts in her discussion that "results from this study would lend support for the argument that a return to single-sex classrooms is contraindicated, at least for boys" (p. 7), the results of the study could be interpreted differently. Yates states in her findings, "of the five ICEQ [Individualized Classroom Environment Questionnaire] scales, significant increases in boys' perceptions of the [coeducational] classroom learning environment were found only for Personalization and not for the Participation, Independence, Investigation and Differentiation scales" (p. 7). It is unclear if the elementary male students' perceptions would remain positive or if they would follow the trend of the secondary students and decrease in the perception of feelings of personalization. Yates explains that a second possible explanation of the findings of the increase in perceptions by boys of personalization of classroom environment is that it has been shown that boys receive more attention in elementary coeducational classrooms. Yates states, "previous findings that boys receive more academic attention and support from teachers in coeducational settings" (p. 6) seems to indicate that boys' feelings of increased personalization may be due to the "complex process of interactions between teacher and students" (p. 7) rather than just the addition of girls to the classroom.

Summary

Research into the effects of single-sex schooling is far from conclusive. Smyth (2010) explains:

It is difficult to systematically compare single-sex and coeducational schools or classes. In many countries, single-sex schools are highly selective in their social and ability profile.... How do we then “control” for these differences in assessing the impact of single-sex education?... Researchers also differ about the kinds of variables to be controlled for in looking at the net impact of single-sex grouping. (p. 53)

The many differences that exist among the schools that are represented in research into the effects of single-sex schools and the self-esteem of those students make it difficult to find conclusive evidence within the research, often even within a single study. “The many differences...leave little room for generalizable conclusions” (Riordan et al., 2008, p. 81). Since so much of the research on single-sex schooling is not generalizable, it is important for the reader to look for his or her own meaning so the results can be transferred and applied to other contexts (Erickson, 1986).

Chapter 3: Methodology

The purpose of this qualitative case study was to examine how men who attended a single-sex elementary and middle school as a boy describe their experiences following their transition to coeducational high schools and how the participants perceived those experiences influenced their global self-esteem during the first years in high school.

The appropriate methodology for the purpose of this study was a qualitative research design. Qualitative research provides an opportunity to “make sense of, or to interpret, phenomena in terms of the meaning people bring to them” (Denzin & Lincoln, 2005, p. 3). The procedures used in this study are organized and presented under the following headings: Research Design, Participant Selection, Data Collection, Validity, Quality Standards and Credibility, Protection of Human Subjects, and Data Analysis.

Research Design

The purpose of this qualitative case study was to examine how men who attended a single-sex elementary and middle school as a boy describe their experiences following their transition to coeducational high schools and how the participants perceived those experiences influenced their global self-esteem during the first years in high school.

The following questions were used to guide iterative open-ended questions to explore the central phenomenon.

1. What changes, if any, did the participants in this study perceive in their global self-esteem as measured by the Rosenberg Self-Esteem Scale (see appendix A) after their transition from a single-sex middle school to a coeducational high school?

2. If there were changes to the participant's level of global self-esteem, how much of the change do the participants attribute to the influence of the different educational environments of the single-sex school and the coeducational school?

This study utilized a qualitative multiple-case study design. Qualitative research is a systematic inquiry in a natural setting utilizing people's words as the primary source of data (Marshall & Rossman, 1989). For this study it was important to utilize qualitative research methods to understand the meaning and experiences of the participants and the meaning they make from those experiences (Denzin & Lincoln, 2005). Qualitative research is rooted in the belief that reality is constructed by individuals as they interact with their world (Merriam, 1998).

The qualitative case study method is used when the phenomenon being studied is not easily separated from the context (Yin, 2003). In this study, the phenomenon of perceived changes in self-esteem cannot be separated from the context of the educational environment. Creswell (1998) states that case studies are "an exploration of a 'bounded system' of a case or multiple cases over time through detail, in depth data collection involving multiple sources of information rich in context" (p. 61). This research looked at the perspectives of individuals' experiences in the bounded system of males in the southern United States who transferred from a single-sex elementary and same-sex middle school to a coeducational high school within the past ten years. Another reason for the use of the qualitative research paradigm is the understanding that the best type of instrument for data collection and interpreting the meaning of an individual's experience in context is the use of a human researcher using interviews, observations, and analysis. Each of these is central to qualitative research (Merriam, 1992). The analysis of this study interpreted the meaning of the participants' experiences through the analysis of interviews.

A multiple-case study approach allows the researcher to explore differences and similarities between cases enabling comparisons to be drawn (Yin, 2003). Merriam (1998) identified three benefits of using a case study approach. They were its characteristics of being particularistic, descriptive, and heuristic. Merriam (1998) explained the meaning of these three characteristics. Particularistic is the ability to examine a singular instance with the possibility to illuminate larger and more general problems. Descriptive refers to using hindsight to describe complexities of situations that are relevant in the present heuristic reflects a case study's ability to explain the background of an issue and explore alternatives with a potential for applicability to other and more current situations.

This study was particularistic. It examined seven individuals' perceptions about their self-esteem with the possibility that those perceptions may increase our understanding of the experiences of students being educated in a single-sex school and may be applicable to others in a similar situation. This study was descriptive. It used the reflections of individuals to describe the complexities of their past experiences using hindsight and reflections to construct rich and thick explanations of their experiences. Lastly, this study was heuristic in the sense it looked at the meaning the participants made of their experiences and how the experiences may be applicable to current educational practices and understanding.

Participant Selection

In order to explore differences and similarities between cases that enable comparisons to be drawn through the use of multiple perspectives of how the participants' perception of their self-esteem changed during the transition from single-sex schools to coeducational high schools, this study used a multiple-case study design that allowed the researcher to investigate several cases to gain insight into a central phenomenon (Merriam, 1992; Yin, 2003). To achieve this, a

nonprobability, or purposeful sampling was used to recruit and select participants to make up a typical sampling. A typical sample looks at the average person experiencing a phenomenon rather than studying a unique, extreme, or deviant case. Subjects were selected who were likely to behave as most of their counterparts would (Merriam, 1992). In order to choose typical participants, those individuals who described themselves as having an extreme situation that may have influenced changes in self-esteem far more than the variable being studied (such as special needs that may have altered their experience beyond the typical person's experience) were excluded.

Before sampling participants, the researcher selected schools that matched the following three criteria:

1. The site must be exclusively a single-sex, all-boy campus offering kindergarten through eighth grade.
2. The site must have been in existence and functioning as a single-sex, all-boy school for more than fifteen years.
3. The site must be located in the southern United States.

Five schools were found that matched the criteria. An electronic letter was sent to the administration of each single-sex school asking for assistance in forwarding an invitation to participate in this study to its alumni. Three out of the five schools agreed to forward a letter from the researcher to its alumni. However, the researcher was contacted by alumni of only one school, thus limiting the study to a single site.

This study used data collected from seven (N=7) males currently between the ages of 18 and 25 years who attended a single-sex school in the southern United States for a minimum of five years and graduated the eighth grade within the past ten years before transferring to a

coeducational high school. The basis for the choice of geographic location was for convenience sampling based on resources of time, location, and access to respondents (Merriam, 1992). The use of males between the ages of 18 and 25 years allowed the participants the benefit of being able to reflect on a time in their life with the perspective that temporal distance and maturity provide. The use of participants who attended a single-sex school for at least five consecutive years ensured that each participant understood the culture of the school and had had adequate experiences from which to draw. The criteria of finding individuals who graduated eighth grade within the past ten years was to provide increased transferability because the school's culture was less likely to have changed greatly from the current student body.

Data Collection

This study's qualitative data collection procedures consisted of a purposeful sampling of males who graduated the eighth grade from an all-boy single-sex school within the past ten years. An electronic letter (see Appendix C) that explained the purpose of this study was sent to the alumni of the single-sex school via the school's headmaster. The letter asked potential participants to contact the researcher. Once the Alumnus contacted the researcher, a follow up telephone call was conducted to determine the interest and suitability of each participant. A 90-minute appointment was scheduled at a location chosen by the participant to conduct a semi-structured audio recorded interview. All interviews were conducted face-to-face. A journal for analytical memoranda was used during the interview to record data not able to be reflected in the tape recordings. In interviews, it was not only important what is said, but also how it was said (Merriam, 1998).

At the beginning of the interview, a consent form (see Appendix D) was signed. A semi-structured interview where was conducted. In a semi-structured interview, "the researcher asks

some questions that are close-ended and some questions that are open-ended” (Creswell, 2002, p. 205). Merriam (1998) explained that the use of a semi-structured interview allows the respondents to define their interpretation in their own way. The semi-structured interview was flexible and open-ended, but was guided by list of questions and issues to be explored. This allowed the researcher to respond to the situation as it unfolded and to new ideas on the topic. “The key concern is understanding the phenomenon of interest from the participants’ perspectives, not the researcher’s” (Merriam, 1998, p. 6).

During the interview, the participant was led through the discussion. The first part of the interview focused on his experiences during his time at his all-boy single-sex school. The second part of the interview focused on his experiences during his time in a coeducational school setting. The participant was asked to take the Rosenberg Self-Esteem Scale twice during the interview. The Rosenberg Self-Esteem Scale is widely recognized and used as a valid measure of self-esteem. The scale was used as an intervention tool to bring forth richer and thicker recollections of experiences in the participant’s mind. The Rosenberg Scale also served as a quantitative tool to measure the participant’s perception of his self-esteem in each of the school environments. The participant was given the 10-question assessment and instructed to answer the questionnaire in the mindset of their self while attending the single-sex middle school. A second administration of the Rosenberg Self-Esteem Scale was conducted while the participant answered the questions in the mind set of his ninth grade self after his transfer to a coeducational high school. The same data collection process was used for each of the seven participants.

Validity

While there is no singular interpretive truth (Denzin & Lincoln, 2005), validity is an important concern for all qualitative research. In this study, validity was addressed through the

honesty, richness, depth, and scope of the data collected from the careful selection of participants and the objectivity of the researcher (Cohen, Manion, & Morrison, 2000). This research followed the suggestion of Marshall and Rossman (1989) who explained that it is important for a researcher to use an in-depth description of the complexity of the interaction amongst variables in the study to create and support validity.

This study does not assume its results are generalizable to all students who transferred from single-sex schools to coeducational schools. The study was conducted with a limited number of participants in a limited section of the United States whose experience may not be sufficiently similar to others to allow it to be generalized to all students. However, it is the intent of this study that readers may transfer the experiences of the participants from this study and apply it in other situations. Erickson (1986) explained that what is learned from a particular case can be transferred to similar situations and that it is the reader, not the researcher, who determines what can apply to the reader's context. Case (2000) states:

Case researchers, like others, pass along to readers some of their personal meanings of events and relationship—and fail to pass along others. They know that the reader, too, will add and subtract, invent and shape—reconstructing the knowledge in ways that leave it...more likely to be personally useful. (p. 442)

In order to strengthen this study's external validity, the study used three strategies described by Merriam (1998). First, the study involved *rich, thick descriptions*, “providing enough description so that readers will be able to determine how closely their situations match the researched situation, and hence, whether findings can be transferred” (p. 211). Second, *typical categorization* was used to describe “how typical the program, event, or individual is compared with others in the same class, so that users can make comparisons with their situations” (p. 211). The third strategy of *multi-case design* “allows the results to be applied by readers to a greater range of situations” (p. 212). It was this study's intent to add to the body of

knowledge about single-sex educational practices and adolescent self-esteem. While this study does not attempt to be generalized to all situations, it can be used in understanding the experiences of others with similar experiences. Marshall and Rossman (1989) describe this as building a bridge to developed theories.

Quality Standards and Credibility

Quality standards in all research are important, Morrow (2005) outlined several guidelines for quality studies pertinent to qualitative research, including (a) situating the sample, (b) grounding in examples and, (c) providing credibility checks” (p. 257). This study included these three quality standards described by Morrow to ensure credibility and trust worthiness. This study met the guideline of *situating the sample* by providing demographic information and life circumstances of participants. This study followed the guideline of *grounding in examples* by including examples of data that supported the researcher’s interpretations. This study also included *credibility checks* conducted through direct contact with participants and the use of recorded and transcribed interviews that were provided to the participants to review and provide feedback to the researcher.

Protection of Human Subjects

All participants were treated in accordance to the ethical guidelines of the American Psychological Association (APA) and the University of the Incarnate Word Institutional Review Board (IRB). Although there were no foreseeable risks identified in participating in this study, all decisions were made with consideration to the best interest of the participants as outlined in the Letter of Informed Consent that was provided to each participant (see Appendix D) explaining the purpose and goal of the study along with an explanation of the role of the participant,

including how the information was used. Each participant was made aware that his participation was voluntary and could be revoked any time before the final report was submitted.

Considerations were kept in mind when dealing with each participant. First, the participant was talking about his personal experiences during their adolescent years and may have felt uncomfortable discussing his experiences. While the researcher encouraged open and honest participation, the participant was made aware he was free to stop the interview at any time or refuse to answer any questions he choose.

Secondly, the researcher understood that the participant may have felt uncomfortable sharing negative perceptions and experiences about the schools he attended for fear his statements may damage the institution's reputation or his relationship with the institution. The researcher made each participant aware that all reasonable efforts to protect his anonymity would be made, but that the researcher could not guarantee absolute anonymity. Anonymity was respected through several steps: (a) participants were given pseudo names, (b) transcripts and audio recordings were safe guarded by being placed into a locked file cabinet or password protected on a private computer, and (c) all documents are to be destroyed upon the completion of this study. The only record linking the participant with the research was the written consent which was destroyed at the time the audio recordings were destroyed.

The researcher was cognizant of these considerations during every stage of the research. An application detailing the purposed research was submitted and approved by the Institutional Review Board at the University of the Incarnate Word (see Appendix B). Every precaution was taken to ensure that each participant's dignity, anonymity, and comfort were protected. Marshall and Rossman (2001) summarized the aspects of conducting an ethical study as (a) the principles of respect for persons which means to respect the participants' privacy, anonymity, and right to

remove consent, (b) beneficence, which means to ensure the participants are not harmed as a result of the study, and (c) justice, which means to be cognizant of who benefits from the study.

Data Analysis

“Data analysis is the process of bringing order, structure, and meaning to the mass of collected data” (Marshall & Rossman, 1989, p. 112). Data analysis occurred concurrently with the collection of data (Baxter & Jack, 2008).

Analysis used the transcribed text and analytical memos to search for themes and patterns to code the data. This study used Creswell’s (2002) six steps to appropriately deal with data collect through interviews:

1. Prepare, organize, and ready the data for analysis.
2. Conduct an initial exploration of data by reading the transcripts several times.
3. Describe and develop themes that become evident from the data.
4. Organize and describe results and then report the findings.
5. Interpret the findings.
6. Validate the accuracy and credibility from the transcripts.

For the analysis of this study, the transcribed interviews were verified for accuracy. An initial code list was created from the data. Through repeated readings, new codes were added and codes were grouped to allow themes to emerge from the data. The data from the individual interviews were then compared to the data that emerged in the other interviews, looking for similarities and differences. The data showed common themes through strong similarities in the way the seven participants recalled their experiences while in both the single-sex middle school and coeducational high school.

According to Yin (2003), cross-examination of the cases with similar profiles, but different settings, provides insight into diverse ways of understanding initiatives. When a pattern from one data type is corroborated by evidence from another, the finding is stronger.

Chapter 4: Results

In this chapter, the results of data analysis will be presented. The purpose of this qualitative case study was to examine how men who attended a single-sex elementary and middle school as a boy describe their experiences following their transition to coeducational high schools and how the participants perceived those experiences influenced their global self-esteem during the first years in high school. Participants used the Rosenberg Self-Esteem Scale (1965) (see appendix A) as a survey to measure the participants' perceived levels of self-esteem while attending their single-sex middle school and during their coeducational high school ninth grade year (see Table 3). Using examples and evidence from the data collected from seven participants through semi-structured interviews, anecdotal records, and artifacts key similarities across the cases were highlighted, allowing themes to emerge and conclusions to be drawn to describe the participants' perceived changes in self-esteem.

Interviews were conducted with seven male alumni of a private, single-sex, elementary and middle school in the southern United States. Each interview used the following questions to guide iterative open-ended questions:

1. What changes, if any, did the participants in this study perceive in their global self-esteem as measured by the Rosenberg Self-Esteem Scale (see appendix A) after their transition from a single-sex middle school to a coeducational high school?
2. If there were changes to the levels of global self-esteem, how much of the change do the participants attribute to the influence of the different educational environments of the single-sex school and the coeducational school?

Commonalities in the data collected from the cases revealed three common themes: (a) participants experienced a feeling of loss of both peer and adult relationships, (b) participants

experienced a change in values and ethics once they entered the coeducational high school, and (c) the focus of competition changed from self-improvement and team building to domination of others. This chapter includes examples drawn from the data of the seven participants to describe the commonalities and findings.

Validity and Credibility

While there is not a singular interpretive truth (Denzin & Lincoln, 2005), validity and credibility are important concerns for all qualitative researches. In this study, validity is addressed through the honesty, richness, depth, and scope of the data collected from the careful selection of participants, and the objectivity of the researcher (Cohen et al., 2000). The researcher ensured credibility in this study by following quality guidelines for qualitative research described by Morrow (2005): (a) situating the sample, (b) grounding in examples and, (c) providing credibility checks.

Interviews were recorded and transcribed by the researcher. The transcription was offered to the participant to review in order to ensure correct statements and completeness of answers. Data from in-depth interviews, demographic questionnaires, and artifacts were then analyzed. Results from the data analysis are presented using themes that emerged based upon the research questions.

Participant Profiles

The next section contains profiles for each participant interviewed in this study. A pseudonym was used to disguise individual identities. The sample group consisted of seven alumni of one private single-sex, all-boy elementary and middle school in the southern United States region. Ages of the participants ranged from 18 to 25 years. Each participant attended the single-sex school for a minimum of five years before graduating in eighth grade and transferring

to a coeducational high school. All seven participants were male and self-identified as heterosexual. Three participants transferred to a public coeducational school for their freshman year of high school. Three participants transferred to a private coeducational school for their freshman year of high school. One participant began high school at a public coeducational high school, but transferred to a private coeducational school during his ninth grade year. Using in-depth interviews, demographic questionnaires, document analysis, and observations, the following participant profiles emerged.

Andrew. Andrew, 18, attended a single-sex school from kindergarten through eighth grade before transferring to a coeducational private high school. At the time of the study, Andrew was attending a university studying classical music and business. During the interview, Andrew was charismatic and eager to share his story as soon as we met. Ironically, he indicated several times throughout the interview that he was not sure he would be helpful because he did not have much to share. Andrew described himself as being artsy. He envisioned himself becoming a professional classical musician, but was willing to “play pop music to pay the bills.” By the time he completed his sophomore year of high school, he had written a symphony that he submitted to a professional symphony for consideration to be played publicly. Before graduating high school, Andrew had released multiple songs to be sold on iTunes.

Barry. Barry, 21, attended a single-sex school from pre-kindergarten through eighth grade before transferring to a private coeducational high school. Barry earned several formal and informal recognitions in both middle school and high school. While in middle school, Barry earned many academic, sportsmanship, athletic, and peer-nominated awards. He brought some of the awards and pictures to the interview. “You said you wanted me to bring some things, so you could see what I did. So I brought these. I had to ask my mom where they were. I don’t keep

them up or anything.” Barry was uncomfortable accepting congratulations and modestly credited others who helped him earn the awards. “I might have been the company commander, but it took everyone to win the [best company] award.” During his freshman year of high school, he did not earn any awards. “Teachers said good job and stuff, but not medals or certificates.” Barry stated he was not very motivated during his ninth grade school year because he felt like it was a review of middle school, and very little new material was introduced. Barry recalled another reason he was not motivated in high school was that once he found out what it was like to not work hard, he stopped doing it. Barry dismissed the fact he was on the honor roll every term as being “easy to accomplish.”

Craig. Craig, 19, attended a single-sex school from third grade through eighth grade before transferring to a coeducational public high school. He transferred to the single-sex elementary from a private coeducational Christian denominational school that had a similar socioeconomic student population as his single-sex school. Both schools were geographically located within ten miles of each other. His younger brother also was moved to the single-sex school at the same time. Craig stated his parents have told him the reason they decided to change his school was to look for a stronger curriculum and an environment that was conducive to teaching active boys. He feels his parents’ decision was motivated by social reasons as well, since many of his mother’s friends had a son at the single-sex school.

After his eighth grade year, Craig transferred to a coeducational public high school with a student population of over 1,500 students in the high school. He felt his transition into high school was made easier because many of his classmates also moved to the same public high school. Craig stated, “I cannot imagine how it would be if I was just one or two who had to go to the high school and not know anyone; that would have been a nightmare.” Craig’s parents

divorced during his seventh grade year. He attributes much of the trouble he got into during that year and through his ninth grade year to his anger towards his parents' divorce. Craig, and a few other students, were caught drinking alcohol during a party during his ninth grade school year and were suspended from the school football team. He felt this was ultimately a positive experience, because it removed him from a social scene with stronger and more dangerous drugs. It also scared some of his friends away from alcohol and possibly drugs while they were young. "Everyone got really scared after that. They used us as the example for the freshman class. After that, everyone was like, 'No drinking for me'."

Craig described that he has a strong bond with his classmates who attended his single-sex school and continues to socialize with them at the exclusion of other males and most females. "We have this group called The Boyz. We call ourselves Boyz and we call each other Boyz. We all hang out together. There are no girls allowed. It is all guys."

Craig summarized his experience of having girls present after the move to a coeducational high school as being "no big deal." He stated that he had socialized with girls outside of school his whole life and was comfortable around them.

For me, it was easy because I had been allowed to be around girls and had been around them enough that I was comfortable being around them when I transferred schools. The only thing I had to adapt to was them actually being in the classroom, which was no big deal.

Craig reported the hardest part he experienced when dealing with the change of school environments was the lack of structure and the freedom students felt to be rude to adults in the high school. He described his middle school as being a "super-sheltered and loving kind of place... It is a little different when you go from a world where you get in trouble if you forget to say 'sir' to teachers."

Craig had a large personality and seemed to enjoy receiving attention. He spoke loudly and was unabashed about telling stories about his youth. Craig stated he has had many advantages in life due to his family's financial wealth and acknowledges that he has taken advantage of the opportunities and spent much of his time having fun rather than being responsible.

Drew. Drew, 18, attended a single-sex school from first grade through eighth grade before transferring to a coeducational public high school. Drew's brother was homeschooled through high school due to severe ADHD while Drew attended a single-sex school. Drew's parents realized that each of their two sons needed different things. "I think they wanted to keep me at home...but they thought I was ready to take on a more traditional schooling." Drew reflected that his parents' decision to enroll him in a single-sex school was due to the academics more than the social environment. Drew's father had been on the faculty at the single-sex school for several years before he enrolled and continued to work at the school through Drew's eighth grade year. While talking with Drew, he became nostalgic for the relationships formed while participating in the military program offered at the single-sex school. "It was something that we all had in common. It was something we did together."

Drew transferred to a coeducational public high school and realized, "I had never really experienced a whole lot [of mean people]. And to be honest, I was relatively sheltered. Going to a public high school was not a complete one eighty, but pretty close." The protective atmosphere at the single-sex-school supported his personal values and Christian-based sense of morality. "The [single-sex middle] school had very similar, if not the same, views of morality that I did, and do have."

Challenges that Drew experienced relating to girls after he entered high school was attributed to his lack of interest in girls when he was a student at a single-sex school. “The [ownership of being exposed to girls in middle school] should have been on me, not so much on the school. I think the school did everything they should have. I probably should have done more stuff like go to the dances.” Drew reported his greatest difficulty in high school life was not with girls. First, it was the realization that effort was not always rewarded. “The kids who play the most in sports are the one who are the most talented, not the ones who work the hardest.” Secondly, Drew believed integrity was not valued by everyone in high school. Drew stated:

One person, or a hand full, does the homework and the rest just copies off him. Why would I do work when I could not do work? ...So that kind of mentality is really popular and to be honest, it has affected me.

Ethan. Ethan, 20, attended a single-sex school from pre-kindergarten through eighth grade before transferring to a coeducational private nondenominational-Christian high school. Ethan was professional and direct during the interview. Ethan recognized his family had provided him with many advantages in life, but he was determined to achieve and earn recognition through his own merits. He sacrificed part of his social life during high school in favor of work and school.

When the interview date and time was set, Ethan was unsure where he would be the day of the interview, so he chose a location central to his work and home. He arrived at the meeting a few minutes late wearing casual clothing. He explained he had been up much of the night helping a mare deliver her colt at a local stable and had just woken up and dashed to our meeting. Ethan declined an offer to reschedule his interview stating that he made the commitment to conduct the interview, and it was important for him to follow through.

Ethan explained education did not come as easily to him as it did to his brother or some of his classmates:

“I knew if I was going to keep up and make the grade, I was going to have to put in more hours than my friends. It meant I could not party or be stupid on the weekends and on school nights.”

Ethan did not earn top awards in academics during middle school or high school, but did get accepted to the same prestigious private university his brother attended. He ultimately chose to attend a university in his home state in order to save money on the cost of tuition. “I know my mom works at my dad’s office. She would rather not have to work. I chose [a local university] because they shouldn’t have to work forever just to pay off my college.”

Frank. Frank, 25, attended a single-sex school from second grade through the eighth grade before transferring to a private coeducational high school in the northeastern United States where he was a boarding student. The interview with Frank was light- hearted. Although he was open and shared his experiences, he would make a joke in an effort to lighten the mood any time he shared something serious. Frank began attending a single-sex school in second grade after his family returned the United States after his father’s job in Mexico ended. Frank was considered a legacy student at the single-sex school. “My father and uncles attended [the same single-sex school]. My cousins went to other private schools, but I went to my dad’s old school.” Frank reflected fondly on his middle school experience, “We weren’t hooligans or criminals. We just did stuff. And to tell you the truth, we probably were less trouble than our counterparts in public school or co-ed school.” Frank elaborated:

We may have said we were doing things, but they always seemed to always have it. They always seemed to actually have the alcohol, or drugs. They were the ones who were promiscuous. We fantasized about it. We talked about whom we wanted to kiss or whom we were going to have sex with. But that was all; just bravado.

After transferring to a coeducational boarding school in the northeastern United States, Frank continued his free-spirited and charismatic attitude. However, upon reflection as an adult, he thought a single-sex-environment allowed him more freedom to be himself. “[When at an all boy school,] I don’t think boys have to worry about being cool, and jocks, and meat-heads if they are surrounded by only boys. And I think the *esprit de corps* can be built better when it is just boys.”

Frank was the only participant in the study who had children. Frank was a step- father of a 13 year old girl and the biological father of a three year old girl.

George. George, 22, attended a single-sex school from third grade through eighth grade before transferring to a coeducational public high school. George left the coeducational public school during the first semester because he was having trouble socially and transferred to a coeducational private military-based high school. George showed up early for our interview saying he did not want to make me wait for him. He had ordered drinks and appetizers for the two of us. George explained, “I thought having food would make it less formal and easier to talk. It’ll give us something else to focus on.”

George attended a public coeducational school through second grade, but was not able to recall much from that experience other than winning a reading award and having a crush on a specific girl. George stated his parents moved him to a single-sex school because of the school’s reputation for strong academics. “They thought the [single-sex school] was the best environment for me, so they made sacrifices to send me there. That is something I will always admire about them and appreciate.”

George framed most of his experiences as positive. Even when he described situations where he was the target of bullying, he would equate it to “being like brothers.” He asked for

reassurance that he would not be identified in the final paper before saying anything he thought may be interpreted as being negative. George stated, “I just don’t want to hurt anyone’s feelings or give the wrong impression. I mean it was really a good experience, but if I say something that upsets someone, I don’t want anyone to be mad.”

Thematic Analysis

The next section of this chapter elaborates on the major findings using pertinent examples drawn from the data of the seven participants to describe the commonalities across the cases and major findings that emerged according to each theme. The purpose of this qualitative case study was to examine how men who attended a single-sex elementary and middle school as a boy describe their experiences following their transition to coeducational high schools and how the participants perceived those experiences influenced their global self-esteem during the first years in high school. The results of this study are drawn from the collected data related to the open-ended research question that guided the study:

1. What changes, if any, did the participants in this study perceive in their global self-esteem as measured by the Rosenberg Self-Esteem Scale (see appendix A) after their transition from a single-sex middle school to a coeducational high school?
2. If there were changes to the levels of global self-esteem, how much of the change did the participants attribute to the influence of the different educational environments of the single-sex school and the coeducational school?

Data for this study included audio recorded and transcribed interviews, the Rosenberg Self-Esteem Scale, field notes, a demographic questionnaire, and artifacts provided by the participants. Using the Rosenberg Self-Esteem Scale (Rosenberg, 1965), it was found that the participants experienced a decrease in their global self-esteem after transitioning from a single-

sex middle school to a coeducational high school. The data analysis looked to understand the participants' perceptions for the decrease in self-esteem as it related to the change between a single-sex environment to a coeducational environment. Analysis continued once the interviews were transcribed to a written text and verified for accuracy. The initial exploration and beginning of data reduction included reading and re-reading the transcribed data to cluster themes. Frequent commonalities across the cases in the participants' experiences and perceptions revealed three major common themes to explain the participants' perceived decrees in self-esteem during their first year of high school. The three themes were: (a) participants experienced a feeling of loss of both peer and adult relationships, (b) participants experienced a change in values and ethics once they entered the coeducational high school, and (c) the focus of competition changed from self-improvement and team building to domination of others. Examples drawn from the data provided thick descriptions of each participant's experiences. The following sections present the findings as expressed by the participants and the major findings that emerged to describe the reported decrease in self-esteem and the perceived influence of the change from single-sex all-male school environment to a coeducational school environment.

Changes in self-esteem. Data from the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and analysis of interviews revealed that every participant perceived and reported they experienced lower self-esteem during their initial high school experience (see Table 3). Each participant was asked to complete a Rosenberg Self-Esteem Scale twice during the interview. While discussing their middle school experience the participants were asked to put themselves back in the mindset of their eighth grade self while completing the Rosenberg Self-Esteem Scale. The participants were later asked to complete the same Self-Esteem Scale in the mindset as if they were in their ninth grade year of high school. All seven participants rated their global self-

esteem to be higher during their time in single-sex middle school than while attending ninth grade a coeducational high school. The mean difference was five points (see Table 3).

Table 3

Rosenberg Self-Esteem Assessment Scores

<i>Participant</i>	<i>Name</i>	<i>8th grade</i>	<i>9th grade</i>	<i>Difference</i>
1	Andrew	23	12	-11
2	Berry	27	22	-5
3	Craig	20	11	-9
4	Drew	25	23	-2
5	Ethan	26	23	-3
6	Frank	29	19	-10
7	George	23	16	-7
Mean		25	20	-5

Perceptions into changes of self-esteem. Using data from in-depth interviews, trends were found giving reasons for the perception of lower self-esteem during the transition from a single-sex elementary and middle school to a coeducational high school. There were three common themes: (a) participants experienced a feeling of loss of both peer and adult relationships, (b) participants experienced a change in values and ethics once they entered the coeducational high school, and (c) the focus of competition changed from self-improvement and team building to domination of others. The following sections give examples from the data that explains the themes and highlights the participants' perceptions into the reported decrease of self-esteem.

Loss of long term peer and adult relationships. The first major theme found using the data to explain the reported perception of decrease in global self-esteem was participants' perception they had experienced a loss of relationships with both peers and adults that had been forged over many years. All seven participants referred to a feeling of loss in peer and adult relationships after transferring from their single-sex school to a coeducational high school.

Andrew recalled his eighth grade year fondly, stating:

My middle school was awesome. The [single-sex school] was one of those weird places where you got really close to your classmates by the end of your eighth grade year. I had a really tight group of friends which was amazing and the faculty was great. Once I got into high school, I realized the professors are not the same quality and they really didn't care about the students as people. We were kind of like numbers.

High school peer social groups were different than Andrew had experienced in his single-sex middle school. "There was not a lot of room for an artsy kid. It was not like I was a cast out, but I did feel like I didn't have a place, really." Andrew described himself as being "artsy" with music being a passion and potential career. Andrew felt he was not appreciated as a musical artist throughout high school. He envisioned himself becoming a professional classical musician, but "playing pop music to pay the bills." By the time he completed his sophomore year of high school, Andrew had written a symphony and submitted it to a professional symphony for consideration. At the time of this study, it had not been played publicly by a professional symphony. He has also released multiple songs to be sold on iTunes. Andrew felt a sense of security in middle school. "The guys had grown up with me, and I guess that made my artsy side more acceptable." Andrew stated he never found a solid group of friends during high school that would fully accept him and his artistic side. "My personality clashed with the norm. People liked me. In a way I was popular, but I am weird." Throughout high school, Andrew returned to his single-sex middle school to perform musical concerts for the students and to work during

summer enrichment camps with young children sponsored by his single-sex middle school.

Andrew recalled his single-sex middle school with nostalgia saying, “It was an all-boy school and a unique experience you can’t get anywhere else.... It was a good match for me.”

Barry had similar perceptions of the bond among his single-sex school classmates. He stated:

My [eighth grade] class, we were all friends. There was like 30 kids. When I went to high school, the class went up to 90-something. I felt like you had your friends, then everybody else were acquaintances. I didn’t really like that.

Barry’s perception of peer relationships in the single-sex middle school was that, “Obviously you have your best friends, good friends, but I didn’t really feel like anybody wasn’t my friend.” Contrasted with his coeducational high school experience, “There were distinct groups of people who were friends and who were not friends.” Barry described his single-sex middle school environment as highly structured, helpful, competitive, and safe:

Teachers would invite you to come back after school to get additional help, so they were always pushing forward. In [the high school] there were a lot of interruptions... teachers are teaching to the middle and bottom to make sure everyone gets it in class. They are so busy teaching, they don’t have time to make connections.

Craig attributed the introduction of girls as a cause for friends to drift apart. “An all-boy school was really nice, because boys could be boys. They could act crazy, and they can just act normally and do things they wouldn’t do around girls.” After initially feeling alone during much of his freshman year, he described an important social aspect of his later high school experience revolved around a group he referred to as *The Boyz*. This group consisted of approximately 25 males; many of them were former students who attended the same single-sex middle school. The group regularly excluded females. “Having girls around changes things. It changes conversations and how guys act towards each other...I had friends outside of The Boyz. We all did, but we

liked to get together with only guys.” Craig described his relationships in middle school with peers and adults as “having a special bond.”

Drew and Ethan stated that their transition to high school was made easier because several classmates from the single-sex school entered the same high school. Drew entered a public school and was overwhelmed by the increase of classmates. He stated, “There were less than 40 kids in my class [at the single-sex school].... That made it nice because there was a big sense of togetherness and everyone knew each other.” However, when entering high school, “there were 340 something in just my [grade].” Drew reported the student socioeconomic and racial demographics were similar between the two schools which gave him a sense of comfort. Drew stated, “I didn’t feel new. I just felt different.” The few friends who transferred to the same public high school created a safe place for him. “I made other friends pretty quickly to be honest, and I still have those friends today.” However, the friends from Drew’s single-sex school are “some of the guys I still hang out with when I am in town.”

Ethan’s transition to high school was made easier because eight of his friends transferred to the same private coeducational high school. “This made my circle of friends large. Their friends became my friends. So people knew me, and that was extremely helpful.”

Drew and Ethan had meaningful relationships with faculty and adult mentors from their single-sex middle school. Drew stated there was a “single-mindedness” among the teachers wanting the students to be successful in school. “They were going to make sure you did everything to succeed.” When asked if there were teachers with whom he did not make a connection, he stated, “Sure, but for every one that fell into that category I had six others that didn’t.” Ethan had a coach that mentored him and is considered a friend now that he is older and not a student. The single-sex school also provided situations where students could learn from

members of the community. Ethan attributes his current career path of veterinary medicine to another adult relationship formed at his single-sex school. Parents were involved with the school and created opportunities for students to experience different adult professions. His parents arranged for him to spend time with a veterinarian while in middle school. “Then he was like, ‘do you want to come work for me?’ It was really cool hard manual work.” Ethan worked part time assisting with large animal veterinary services during high school. Both Drew and Ethan developed friendships with peers and adults from the single-sex school that continued into adulthood to be a significant part of their lives.

Frank also experienced a feeling of closeness to his classmates. He graduated eighth grade in a class of only 12 students. This was the smallest graduating class of the participants interviewed. He attributed part of the reason for his close friendships to the perception that the students could be themselves:

I guess when we were in class we did not have to worry about impressing girls. If a guy came with messy hair we didn’t care.... Because when I went to high school I went to a boy and girl school. All of a sudden the boys who were not into sports were left out.... Guys acted tough for girls and would be cruel to anyone they could just to prove they were stronger to win a girl’s favor.

Frank transferred to a coeducational high school in the northeastern United States where he attended as a boarding student. He did not have any classmates transfer with him to high school. However, similar to the other participants, the relationships he had from his single-sex elementary and middle school continued to be part of his adult life. “I still have those friends; Not most of them, but some of them. We see each other occasionally, but it is more common to be in contact for business purposes. We recommend each other when we can.”

George attended two high schools during his ninth grade school year. The first school he attended was a coeducational public high school. None of his classmates from his single-sex

middle school transferred to the same public high school as George. George was so uncomfortable in a large public school that he transferred a private coeducational high school during the first semester of his ninth grade year. Throughout the interview, George shared that part of the reason he believed his transition to his first coeducational high school was not successful was due to his naturally shy and reserved personality. George felt lost with the larger student population size and missed the support he felt from peers and adults at his single-sex middle school. Reflecting on his experience, he stated that the adults in the high school did not provide him with the type of support he needed academically or socially to help him transition to the school. "At [the single-sex middle school], I was able to make friends because [the students] were more patient and accepting."

During his ninth grade year, George transferred from the public school to a private coeducational high school where a few of his classmates were enrolled. Even though he was still shy and had difficulty making friends, he felt safer because his friends from the single-sex school were "like a family." They provided him with a source of friendship and a way for him to meet other people as well as a sense of safety. "These people would end up going to bat for you if anyone messed with you." George stated he feels like this protective relationship continued into adulthood and is still an important part of his life. "I have not stayed in contact with any of my classmates. But I know if I were in trouble, I could pick up a phone and they would be there for me."

Adult relationships were also important during George's time as a student at a single-sex school and remain important to him. George stated:

I always felt comfortable at the school. I always enjoyed coming back to the school. You know? Visiting as a high school student and seeing the teachers. They were always happy to see old students. I even worked there in the summers. I wanted to be part of the school. To be honest I was a little surprised after I graduated from college and I came back. I was

surprised the students did not know who I was. I felt so important there. I assumed everyone would just know me.

Changes in values and ethics. The second major theme found using the data to explain the reported decrease in global self-esteem was a perceived change in values and ethics once the participants left their single-sex school and transferred to a coeducational high school. Each life experience is unique, but the similarities in the participants' backgrounds helped to reveal the importance of the variable of the participants' coeducational high school.

Data analysis revealed that the participants had similar socioeconomic and socio-cultural backgrounds. After transferring to a coeducational high school, they each experienced a conflict with the values and ethics they held while attending a single-sex school. The single-sex school provided a code of values and ethical expectations that were consistently taught and reinforced. The coeducational environment may have expressed similar values, but authority figures were perceived to actively ignore misbehaviors which created a belief that there were not consequences for individuals who did not follow the rules. This created a conflict for the participants and was interpreted as a sense of freedom. After experimenting with the new sense of freedom and expanded boundaries, many of the participants stated they experienced difficulties in relationships with peers and adults. Some of the participants experienced trouble with the law. However, they felt more comfortable and happy later in life when they reverted back to the values and ethics they were taught in their single-sex school.

The single-sex middle school was described by Andrew, Craig, & Drew as being a nondenominational Judeo-Christian based institution with a wide range of religions represented in the student body. Barry described the student body as diverse. He stated:

[The student body was made up of] Muslims, Hindu, Christian, and Jewish guys. We even had some guys who said they were agnostic or atheist. I didn't really know difference and they probably didn't either, but religion was not the big thing. It was the

moral training. The headmaster would gather the whole school every day for a chapel lesson. He would use examples from movies or from books, or from other stuff to teach a lesson on being honest, kind, and the best we could be. Moral training was a daily school wide lesson.

Barry compared his experiences between the single-sex middle school and the coeducational high school:

Middle school had a hyper-structure to it. It was military school, but not like basic training. We just knew what was going to happen, and we knew the rules and consequences. When I went to [a private high school] it was like there wasn't as many rules. Teachers didn't even know your name. A few of my friends went to [the same private high school]. But my best friends went other places. When I first got to [freshman year], people were doing what I thought was really bad stuff, like cussing and being late to class on purpose. The school was large, so I did not have classes with the same guys. There wasn't any consistency. I got lazy in high school. I still made good grades.

[The private high school] does not give out academic awards like [the single-sex middle school]. They really don't give out any awards for being better than other students, so [working hard] did not seem important. During my freshman year, it was mostly a review of what I had already done in eighth grade, so I didn't have to study. I just coasted along. Once I found out what it was like not to work hard, I liked it. I didn't put a lot of effort into much of anything.

Barry stated that after he completed high school, he realized that in order to get the things he wanted out of life, he had to put more effort into his studies and life in general.

It was like I was back at [single-sex middle school] except I was not working hard for an award or to beat someone else. I was doing it because it was right. I can still hear the lessons [the headmaster] gave in chapel. 'Your most valuable asset is your integrity. Your work ethic is one part that tells people if you have integrity.' I guess the old Bible saying about leading up a child and he will follow the path is right. I have kind of gone back to the things I was taught when I was younger.

Craig described his single-sex middle school's ethical lessons and its structure as training.

"They focused on leadership and trying to mold you into a god person with good values, I guess.... I tried to model my thinking and my life around those morals because they are good morals." Craig described being overwhelmed during his first days of his ninth grade year in high school. "I was so nervous, because I had never been in a room with so many people school related. I was like, 'this is my class?'"

Craig joined the football team looking for a peer group to identify with and as a source of socialization. Drinking became a regular indulgence for him. “I was a bad kid my freshman year.” Craig experienced trouble with the law during his freshman year of high school. During the second semester of high school, it was reported to the school he had been caught drinking alcohol. He was suspended from the football team for the remainder of the season, and his parents restricted his social life outside of school. While he was restricted from socializing outside of school, he attended outpatient counseling. “I realized I am my own person. I stopped drinking for a while.” After his suspension from the football team was lifted, he decided not to return to the team. “I wasn’t happy there. I wanted to belong, but they were not really where I fit in.”

Craig joined the golf team during his junior year, which gave him a feeling of accomplishment and success. Craig later stated he would drink alcohol throughout high school and later in life, but not recklessly.

I realized [alcohol] was not needed to have fun. I figured out once I started driving I don’t drink and then get in a car. I was not going to get a DWI and then not be able to get into college and ruin my young life. I knew it was completely stupid.

Craig likened his counseling sessions to the times he was sent to the headmaster’s office in his single-sex middle school. “It was like having [the headmaster] go, ‘Why did you yell in class? Was there a better way to handle this?’ I guess he was always teaching us to look at our actions and think about the consequences.” This realization and comparison was important to Craig. The same values and ethical standards he learned in his single-sex middle school became the values and ethical standards he used to guide his actions later in high school and college. “It is not exactly the same because I am in an adult world with more freedom and consequences are more complex, but the personal responsibility toward my actions is similar.”

Drew was the only person who verbalized he was glad to leave the single-sex middle school environment. “I was just ready to go... I was tired of not having hair and tired of not having girls around.” However, Drew followed up his statement about being glad to leave with a personal reflection that the experience was a good one in hindsight:

I think it was better for me in the long run. It was a character building experience. It gave me discipline. When someone tells you to do something, you need to do it. Discipline is just doing it. Knowing that I need to do what I am expected to do. I have to police myself and can't expect others to do that for me.

Drew's reaction to the freedom he experienced in public high school during ninth grade was different from the other participants. Rather than exploiting the perceived sense of freedom and getting into trouble, Drew found a sense of safety and comfort by removing himself from the situation and becoming more involved in his church and his religion. Drew stated, “I don't like what society stands for. I knew I would not date someone like that. I was friends with girls, but I wouldn't date them. I think our society pushes and glorifies [immoral behavior].” When asked where he thought his strong sense of morality came from, Drew explained:

Since I've been a little kid, I have always had a really attuned sense of right and wrong. I don't know why I am that way. I think part of it is because I am a Christian and the Holy Spirit tells me ‘this is right and this is wrong.’ But that is not the only reason. I know I could get away with cheating or doing bad things, but that is not what my parents want for me. That is not what God would want me to do, and that is not what I want me to do.

Like the other participants, Drew identified himself as having values and an ethical code in adulthood similar to the ones taught in his single-sex middle school. However, he was the only participant in this study who expressed disappointment in the teaching of values during middle school. Drew thought the values taught at his single-sex middle school set unreal expectations and caused a culture shock he was not prepared for when he when he realized the whole world does not have the same values and sense of fairness:

It took me awhile to figure out what was happening. To be honest, a lot of it didn't hit me for a while. I was just like, hey this is new and I'm going to go with it.... The world was different from what [the headmaster of the single-sex middle school] said it was like. The kids who play the most in sports are the one who are the most talented; not the ones who work the hardest. That is not what I heard, and grew up being told. I am looking and seeing the opposite. The kid who has been working the hardest, is he playing? No. it is the most talented and the best ability that is playing. Who are the kids who are getting the best grades? Well, not the kids who read [the assigned chapters]. It is the kids who read the Cliffs Notes the night before. Then, it becomes not the kid who read the Cliffs Notes. It is the kid who looked off the kid next to them. It is like, 'Who in the class that read the notes last night? Okay, we are going to copy off you.' That is what it has become. One person, or a hand full, did the homework and the rest just copy off him. That is what it was like. When no one is telling you work is important, it is not important to you. When no one pushed these values, they are not values. What are they? Why would I do work when I could not do work? So, that kind of mentality was really popular.

Ethan also used the values and ethical teachings from his middle school experience as a basis for his behavior as a young adult, but he expressed a disregard for authority figures to impose rules that he did not agree with. Ethan stated he still believes the school rules forbidding students to carry firearms and other weapons inside their car while on campus were "ridiculous." He continued carrying hunting rifles in the trunk of his car when he felt it was appropriate. Ethan saw firearms as part of daily life and decided to disregard this rule. He also regularly carried a knife with him while at school. He justified it by saying it was a tool rather than a weapon.

The idea of honesty and work ethic were important parts of Ethan's life later in high school. He felt the built-in sense of competition created a sense of work ethic for him. Ethan stated:

At [the single-sex middle school], competition is everywhere. Guys just want challenge the other guy. It is even better if you can best one of your friends. We were always pushing ourselves for grades, in sports, in the military, everything. In co-ed school that competitive edge is not there. Everyone is a winner, so there is not the same desire to push and work your hardest.

This competitive drive and work ethic returned for Ethan later in high school when he started thinking about attending college. He realized he needed to stand out from his peers to

earn an acceptance letter into a “highly respected university.” He found the work ethic he learned at his single-sex middle school was the foundation that set the guidelines for him in high school. Preparation for entrance to college gave him a purpose to push himself academically and in his part-time after-school job as a veterinarian’s assistant. This also gave him a reason to avoid situations that may have caused him legal trouble such as drinking and drug use. Ethan looked back at this time as being similar to his experience at his single-sex middle school saying, “I had a goal, a purpose, something that was more and outside of just me.”

George was very close to his family growing up and throughout high school. He stated that he did not rebel in the same way many of his peers did. He described himself as a shy and careful person. During his eighth grade year at his single-sex middle school, he became restless and attributed it to a desire to be near girls. George began ninth grade in his local public high school, but transferred to a private coeducational high school during the first semester, stating, “It just wasn’t a good fit for me.”

George began high school at his local public coeducational high school. During his first semester of his ninth grade year, he and his family decided he should move to a private coeducational high school. George gave several reasons for the move including a need for better academics, better college preparation, and better opportunities for peer relationships. George explained, “My personality fit a small private military Christian school.” The demographics of the student body of the private high school were similar to his single-sex middle school and this gave him a sense of comfort. George continued, “The private and all-boy school both were great because we didn’t have a lot of discipline problems. If a student misbehaved, [the school] dealt with it and we moved forward. We used our time wisely.” George gave his impression of the difference of the students’ attitude in his coeducational school:

I don't believe students go to school to learn. They go to school to socialize, and while they are there they get an education. When I think back to high school, I wanted to be with my friends, and I went to class because I was required to go to class. I studied, because I wanted to do well.

George felt the most comfortable in a small-group setting where he could receive more attention from adults and a feeling a safety, so he transferred from his local public high school to a smaller private coeducational high school. The private high school had similar student demographics and a military program similar to his single-sex middle school.

Even though George said he was eager to move to a coeducational high school to be near girls, he stated he felt too shy to make friends or even speak with girls when he got there. He attributed part of his shyness around girls to the fact he attended an all-boy school and did not have much exposure to girls. "I was a naturally shy person and girls scared me because I didn't understand them, and still don't. But that is part of the fun and mystery."

George became more focused while at the private coeducational high school and, similar to Ethan, likened it to his days at his single-sex middle school. "I just needed to remember what I was taught way back then."

Change in the purpose of competition. The third theme data analysis revealed that provided insight into the perception of the participants' reported decrease in global self-esteem after entering a coeducational high school was a perceived decrease in motivation due to a change in the purpose of competition after transferring to a coeducational high school. The data showed that the participants in this study expressed a belief that an all-boy environment promoted competition that created a healthy and motivating environment. As students at the single-sex middle school, the participants competed formally and informally in academics and extracurricular events such as sports, theater, and school-wide team events. The students were divided into four groups called companies, patterned after the military. Each company was made

up of students randomly assigned from third grade through the eighth grade. The companies received points based on individual and group athletic competitions, academic scores, and military based drill competitions. Competition served to motivate students to participate in school activities and to build a sense of community.

Ethan expressed that competition was a daily part of his all-boy school experience:

Everything at [the single-sex school] is competition whether you realize it or not. Everyone enjoyed competing. In a co-ed school, that competitive edge is not there. Everyone is a winner, so there is not the same desire to push yourself and work your hardest.

Frank described the competition in his single-sex middle school as a way to make all students feel included and to teach students to value the different strengths of each individual.

The smart guys were not nerds. People wanted smart guys, and jocks, to help their company's score. Points were given for academics and athletics, so the company needed everyone to be part of the team. Everyone was included in winning.

Frank continued by describing how different his experience was in his coeducational private boarding school:

I guess when we were in [an all-boy] class, we did not have to worry about impressing girls. The guys came with their hair all messy. We didn't much care about that. We didn't worry about being cool for the girls. In high school, we had to be careful not to look uncool and split our time between impressing the girls with machismo and school work.... The jocks and dummies were the ones getting the girls, so a lot of the guys—I don't know if they acted dumber—or if they became dumber, but they lost a lot of that competitive edge in academics. And I think that had a lot to do with being around girls.

The perception of competition among males being a motivating influence in a single-sex boy school is reflected by Ethan's description of team building he experienced through competition.

All the boys were put into four companies, and they competed in everything. We earned scores in marching in the military program, our appearance, academics, everything, even how many books we read. People didn't feel bad, because there were so many people involved that it was not like only one person won or lost the thing. Everyone had a part, and that motivated us to try our best and help anyone who needed it.

Andrew expressed that the introduction of females changed the competition from self-improvement and community building to individuals attempting to dominate others. “People become primal and feel like they have to be number one so girls will like them.” Frank gave his insight as a father of an elementary school age daughter into the difference between competition among males and competition among females.

Guys will compete in everything. They will compete against their best friend. Actually, they will try harder when they are competing against their friends than strangers. Girls do not want to hurt their friend’s feelings by beating them. Girls seem to try harder if they are on the same team as their friends and playing against strangers. Boys will laugh about how they won and use it as a bonding thing. If a girl beats her friend, it can cause them to fight.

Barry felt academic competition in coeducational high school also became gender polarizing along gender lines depending on the subject matter.

Guys stopped talking in English class. I think the girls answered all the questions in there, because it was always about feelings. But in U.S. History and Political Science class the guys dominated the conversation. I guess it was because there were things to debate about.

The participants in this study felt the single-sex all-boy school effectively harnessed and directed an innate competitive spirit of boys and channeled it to be a way to encourage and motivate students toward self-improvement. Competition also served as a way to build relationships and teach that individual differences are to be valued.

Summary

Analysis confirmed themes that evolved from the data. The participants in this study had similar cultural, ethnic, and socioeconomic backgrounds which allowed the cases to be compared for similarities in other aspects. Although they all mentioned eventually developing new friendships with both males and females, the participants in this study felt their strongest and longest lasting friendships have come from their time while attending a single-sex school.

Data analysis also revealed that the values and ethical teaching the participants of this study experienced and embraced while attending the single-sex school was credited as the bases for their values and ethics in adulthood. The participants experienced different degrees of feelings of freedom and had experimented with different values, beliefs, and ethics when entering a coeducational high school. Some did not continued to embrace the Christian religious beliefs the single-sex middle school espoused, but each of them made a conscience decision to practice the values and ethics they remembered learning while attending their single-sex elementary and middle school.

The single-sex school provided value and ethical expectations that were consistently taught and reinforced. The coeducational school environment may have expressed similar values, but authority figures were perceived to actively ignore misbehaviors and created a belief among the participants that there were not consequences for individuals who did not follow the rules. This created a conflict for the participants and was interpreted as a sense of freedom. After experimenting with the new sense of freedom and expanded boundaries, the participants experienced difficulties in their relationships with peers, adults, and, in some cases, the law. Many of the participants stated they were more comfortable and happier later in life when they reverted back to the value and ethical expectations they were taught in their single-sex school.

The cases showed that the participants valued competition as an important part of building school and peer relationships and as a source of personal motivation to work hard, develop and practice integrity, and achieve both academically and in extracurricular activities. Through the school's deliberate creation of four teams, called companies, the students learned that individual differences and strengths were to be embraced and valued by the student

population. Competition also served as a source of motivation for self-improvement and community building because the students and encouraged each other.

Coeducational school environments also included competition, but the purpose of competition was not for self-improvement and team building. Competition in the coeducational schools became a way for stronger students to dominate weaker students in attempts to set themselves above and apart from the group.

The feelings of loss of peer and adult relationships, adjustments in values and ethics, and changes to the purpose of competition are three themes data analysis revealed as the perceived influences on the participants change in self-esteem after transferring from a single-sex middle school to a coeducational high school.

Chapter 5: Conclusions and Recommendations

Since the passage of NCLB (U.S. Department of Education, 2002), American schools have been under increased accountability measures. Schools are held responsible for individual student's academic performance measured by standardized tests. "Chronically failing schools face the possibility of the ultimate consequence—they could lose their students and the state funding that accompanies them" (Green et al., p. 1125). With the increased accountability requirements, schools have looked for evidence based research to guide and support educational changes to improve student performances and scores (Barton, 2006; Viets, 2009). This study adds to the body of knowledge about the experiences of single-sex students by exploring the perceptions of changes to self-esteem of males related to the change in academic environments from a single-sex middle school to a coeducational high school.

Research has constantly shown a positive correlation between a student's self-esteem and academic success (Rosenberg et al., 1989). Therefore, it is understandable that schools consider self-esteem an important aspect as a way to increase student academic performance. When a child's level of self-esteem is higher, their academic motivation and performance also tends to be higher (Wigfield et al., 1991). Studies have shown that students attending a single-sex school have reported positive effects in self-esteem (Granleese & Joseph, 1993) and in performance (Mael et al., 2005).

Single-sex schooling is a growing trend in American education looking to provide a supportive environment for the differing educational needs of students in order to increase student performance (Riordan et al., 2008). Single-sex schooling has been shown to have a positive impact on academic performance for males and females (Mael et al., 2005) and it has

been suggested that there is a positive impact on self-esteem and self- concept, especially for males (Marsh et al., 1989).

Since the changes in educational legislative policy and the increase of single-sex environment are relatively recent, there is a weakness in research into the experiences of individuals in single-sex schools. The weakness is even greater when looking at research into the experiences of students of single-sex schools at the elementary and middle school level. Furthermore, there is a weakness in qualitative research into student self-esteem after leaving the single-sex school environment. In order for schools to better understand the student populations who have attended a single-sex school, more research should be conducted into the experience of students and issues pertaining to single-sex education.

This study used a qualitative case-study approach. Data included transcribed audio recorded interviews, demographic questionnaire, artifacts, and the Rosenberg Self- Esteem Scale (Rosenberg, 1965) (see appendix A) to create rich and thick data. Coding was utilized in the analysis of data. Patterns and themes evolved from the coding (Creswell, 2002).

The purpose of this qualitative case study was to examine how men who attended a single-sex elementary and middle school as a boy describe their experiences following their transition to coeducational high schools and how the participants perceived those experiences influenced their global self-esteem during the first years in high school.

The following research questions were used to guide data collection and analysis: How do men who attended a single-sex elementary and middle school in the southern United States describe their experiences while transitioning to a coeducational high school, and how do the participants perceive those experiences influenced their global self-esteem during their first years in high school?

The following questions were used to guide iterative open-ended questions to explore the central phenomenon:

What changes, if any, did the participants in this study perceive in their global self-esteem as measured by the Rosenberg Self-Esteem Scale (see Appendix A) after their transition from a single-sex middle school to a coeducational high school?

1. If there were changes to the levels of global self-esteem, how much of the change did the participants attribute to the influence of the different educational environments of the single-sex school and the coeducational school?

Data analysis revealed each participant perceived a decrease in their self-esteem as measured by the Rosenberg Self-Esteem Scale. Three common themes emerged from data analysis that gives insight into understanding the participants' perception of lower self-esteem during the transition from a single-sex middle school to a coeducational high school. The three themes that emerged from the analysis of the data were: (a) participants experienced a feeling of loss of both peer and adult relationships, (b) participants experienced a change in values and ethics once they entered the coeducational high school, and (c) the focus of competition changed from self-improvement and team building to domination of others. The following sections of this chapter consist of Conclusions, Recommendations for Future Research, and Summary.

Conclusions

A number of conclusions were reached from the analysis of data from this study. The first conclusion was that the single-sex elementary and middle school the participants attended provided a structured and nurturing environment where the participants developed strong personal relationships with their peers and adults. Positive personal relationships are important in creating and maintaining self-esteem (Kwan, Bond, & Singelis, 1997).

The second conclusion reached from the analysis of the data was that values and ethics were important for students to maintain global self-esteem. As the individuals allowed their behavior and actions to differ from their personal set of values and ethics, there was a negative impact on the participants' global self-esteem. The participants' single-sex middle school was consistent in its teaching and reinforcement of values and ethics that became the basis for the participants creating a standard to base behavior and actions upon later in life. When the participants realigned their behavior and actions with the values and ethics they learned at their single-sex school, their self-esteem improved.

The third conclusion reached from the analysis of the data was that, for the participants, competition was important for developing and maintaining self-esteem. The males in this study valued competition as a source to develop friendship, learn leadership skills, and as a motivation for self-improvement. After transferring to a coeducational high school environment, the participants perceived that competition changed from school-wide team competition to one of individualistic and self-aggrandizement. The participants lost interest and became complacent, resulting in lower motivation, fewer opportunities to feel a sense of pride and accomplishment, and ultimately lower global self-esteem. Rosenberg (1979) explains that individuals learn about themselves through social comparisons. Group and individual competition within the single-sex school setting allowed the participants to identify their personal strengths. While at the single sex school, the participants competed in large groups for points in a variety of areas. This created an atmosphere and need for a variety of talents and skills which created an environment where each person's strengths were valued.

Recommendations for Future Research

This qualitative case study provided information about the perceptions and experiences of seven males who attended a single-sex elementary and middle school before transferring to a coeducational high school and how those experiences influenced their global self-esteem. It adds to the body of research on gender studies, self-esteem, and education, specifically into single-sex schooling. Bong and Skaalvik (2003) explain the importance of positive self-esteem in students for academic performance.

Positive self-concept lead students to set challenging yet attainable academic for themselves, feel less anxious in achievement settings, enjoy their academic work more, persist longer on difficult tasks, and, overall, feel better about themselves as a student. (p. 32)

The following section includes areas for suggested research.

This study is not meant to be generalizable to the larger population of students transferring between single-sex schools and coeducational school. However, readers may be able to learn and transfer understanding from the experiences of the participants from this study and apply it to other situations. Erickson (1986) explains that what is learned from a particular case can be transferred to similar situations and that it is the reader, not the researcher, who determines what the reader can apply to his or her context. Case (2000) states:

Case researchers, like others, pass along to readers some of their personal meanings of events and relationship and fail to pass along others. They know that the reader, too, will add and subtract, invent and shape-reconstructing the knowledge in ways that leave it...more likely to be personally useful. (p. 442)

To confirm and further the exploration of this topic, future studies are needed to see if the findings are similar to other students transitioning between single-sex middle schools and coeducational high schools. Additionally, studies might include pretests and posttest of students as they transition to a variety of school environments (e.g., single-sex to coeducational, single-

sex to single-sex, coeducational to single-sex). Such studies might look for trends in self-esteem as adolescents transition between environments.

This study also revealed that the participants valued how the all-male single-sex school environment used competition to create a sense of community, teach that individual differences and strengths should be valued rather than suppressed, and encourage self-improvement, whereas, in the coeducational environment, competition became about dominance and personal glory for only a few individuals which resulted in a loss of motivation and self-esteem by others. Future studies might examine how competition can be used effectively in schools to promote self-esteem and community building.

Summary

Seven males who transferred from a single-sex elementary and middle school to a coeducational high school were interviewed to examine their perceptions of how their experiences influenced their global self-esteem. This study found each participant experienced a decrease in self-esteem following their transition to a coeducational high school. Three common themes were found in the data collected from each of the participants to explain the reported decrease in self-esteem after transferring from a single-sex middle school to a coeducational high school. First, each of the participants experienced a feeling of loss of both peer and adult relationships that were built over many years while attending the single-sex school. Secondly, the participants experienced a change in values and ethics once they entered the coeducational high school. They interpreted this change in values and ethics as a sense of freedom and experimented with behaviors that resulted in trouble with peers, parents, and the law. Each of the participants expressed the idea that later in life they returned to the values and ethical behaviors that were taught at the single-sex school. They perceived they were happier and their self-esteem increased

when they returned to the values and ethics they learned at their single-sex school. Thirdly, the purpose of competition was different between the single-sex school and coeducational schools. The purpose of competition at the single-sex school focused on self-improvement and team building, but changed to a focus of domination of others at the coeducational high schools. This shift from a community identity to an individualistic identity was one of the causes for the participants to experience lower self-esteem.

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Appendix A: Rosenberg Self-Esteem Scale

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

The scale is a ten item Likert scale with items answered on a four point scale - from strongly agree to strongly disagree. The original sample for which the scale was developed consisted of 5,024 High School Juniors and Seniors from 10 randomly selected schools in New York State.

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

1.	On the whole, I am satisfied with myself.	SA	A	D	SD
2.*	At times, I think I am no good at all.	SA	A	D	SD
3.	I feel that I have a number of good qualities.	SA	A	D	SD
4.	I am able to do things as well as most other people.	SA	A	D	SD
5.*	I feel I do not have much to be proud of.	SA	A	D	SD
6.*	I certainly feel useless at times.	SA	A	D	SD
7.	I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
8.*	I wish I could have more respect for myself.	SA	A	D	SD
9.*	All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
10.	I take a positive attitude toward myself.	SA	A	D	SD

Scoring: SA=3, A=2, D=1, SD=0. Items with an asterisk are reverse scored, that is, SA=0, A=1, D=2, SD=3. Sum the scores for the 10 items. The higher the score, the higher the self esteem.

The scale may be used without explicit permission. The author's family, however, would like to be kept informed of its use:

The Morris Rosenberg Foundation
c/o Department of Sociology
University of Maryland
2112 Art/Soc Building
College Park, MD 20742-1315

References

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Appendix B: Institutional Review Board Approval



3/12/2013

Dear Mr. Atkerson:

Your request to conduct the study titled *Effects on Self-Esteem of Boys during the Transition from a Single-sex School to a Coeducational High School* is approved as an expedited study. Your IRB number is 13-03-012 and was approved on 3/8/2013. Attached is a copy of your scanned IRB. The file includes the application with IRB number and the stamped IRB consent form. Please use copies of these stamped documents when you communicate with or consent your subjects. Electronic surveys or electronic consent forms, or other material delivered electronically to subjects must have the IRB approval number inserted into the survey or documents before they are used.

Please keep in mind these additional IRB requirements:

- This approval is for one year from the date of the IRB approval.
- Request for continuing review must be completed for projects extending past one year. Use the **IRB Continuation/Completion form**.
- Prompt reporting to the UIW IRB of any proposed changes to the approved research activity.
- Any change in proposal procedures must be promptly reported to the UIW IRB prior to implementing any changes except when necessary to eliminate apparent immediate hazards to the subjects. Use the **Protocol Revision and Amendment form**.
- Prompt reporting to the UIW IRB of any unanticipated problems involving risks to subjects or others.
- IRBs are filed by their number. Please refer to this number when communicating about the IRB.

Suspension or termination of approval may be done if there is evidence of any serious or continuing noncompliance with Federal Regulations or any aberrations from the original application.

Congratulations and best wishes for successful completion of your research. If you need any assistance, please contact the UIW IRB representative for your college/school. You will be receiving a copy of this letter in the mail at the address indicated on the IRB application.

Sincerely,

Dr. Helen Smith

Dr. Helen Smith
Chair, University of the Incarnate Word IRB

Appendix C: Letter to Potential Participants

Dear Alumnus of XXXXXX,

I am Patrick Atkerson, a doctoral student at University of the Incarnate Word in San Antonio, Texas.

You are being asked to take part in a research study to understand the experiences of boys who attended a single-sex middle school and then transferred to a coeducational high school. I want to better understand what effect the change between the two environments has on an individual as well as ways educators can help students who move from a single-sex school to a coeducational school.

Your former school has selected you as a possible participant because you attended a single-sex middle school. If you transferred to a coeducational high school after attending a single-sex middle school and are willing to participate in this research, we will schedule a onetime interview to be conducted at your discretion in a site of your choice. During the interview you will be asked demographic questions about yourself, and open ended questions pertaining to your experiences in both the single-sex school and your freshman year at the coeducational high school. These questions will comprise the interview itself which will be audio recorded. The entire process should take approximately one hour.

Everything that is learned from you will be confidential. You will not be identified except through a pseudonym chosen by you at the time of the interview.

If you have any specific questions or would be willing to participate in this study please contact me at atkerson@student.uiwtx.edu or 210-xxx-xxxx.

If you wish to report a problem related to the researcher or the study, contact: Dr. Norman St. Clair 210-829-3138 or stclair@uiwtx.edu.

The University of the Incarnate Word Institutional Review Board reviews research on human subjects and will answer questions about your rights as a research subject (210-829-2757).

Thank you for cooperation and support. Please email me if you are able to help with this study.

Sincerely,
Patrick Atkerson
210-xxx-xxxx (cell)
atkerson@student.uiwtx.edu

Appendix D: Participant Informed Consent Form

Title of Study: *Effects on Self-Esteem of Boys during the Transition from a Single-sex School to a Coeducational High School*

Principal Investigator:

Patrick Atkerson
Doctoral Candidate, University of Incarnate Word
Department of Organizational Leadership
210-xxx-xxxx; atkerson@student.uiwtx.edu

Background:

You are being invited to take part in a research study by a doctoral candidate of the Ph.D. program at University of the Incarnate Word. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please take the time to read the following information carefully. Please ask the researcher if there is anything that is not clear of if you need more information.

The purpose of this study is: to examine how men who attended a single-sex school describe their experiences following their transition to a coeducational high school and how those experiences influenced their self-esteem during the first year in high school.

Study Procedure:

Your expected time commitment for this study is one to two hours. During a recorded interview you will be asked to read a ten question survey and use it to reflect on your experiences in both middle school and high school. Afterwards you will be given the opportunity to read a transcribed copy of the conversation to check for accuracy. Finally your responses will be compared and contrasted to others in the study.

Risks:

The risks of this study are minimal. These risks are similar to those you experience when disclosing work-related information to others. The topics in the survey may upset some respondents. You may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

Benefits:

There will be no direct benefit to you for your participation in this study. However, we hope that the information obtained from this study may help teachers, parents, and administrators better understand the experiences of boys who attend a single-sex school and then transfer to a coeducational high school.

Confidentiality:

For the purposes of this research project your comments will be anonymous. Every effort will be made by the researcher to preserve your confidentiality including the following: You will be asked to create a Pseudonym that will be used during the interview and in any written material. Notes, interview transcriptions, and transcribed notes and any other identifying participant information will be kept in a locked file cabinet in the personal possession of the researcher. When

no longer necessary for research, all materials will be destroyed. The researcher and the members of the researcher's committee will review the researcher's collected data. Information from this research will be used solely for the purpose of this study and any publications that may result from this study. All participants involved in this study will not be identified and their anonymity will be maintained. Each participant will be given the opportunity to review a transcribed copy of their interview to clarify answers or amend responses.

Person to Contact:

Should you have any questions about the research or any related matters, please contact the researcher at 210-XXX-XXXX or atkerson@student.uiwtx.edu

Institutional Review Board:

If you have questions regarding your rights as a research subject, or if problems arise which you do not feel you can discuss with the Investigator, please contact the Institutional Review Board Office at (210) 829-2759 (Dean of Graduate Studies and Research).

Voluntary Participation:

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you do decide to take part in this study, you will be asked to sign a consent form and allow the researcher to audio record an interview lasting between one and two hours. If you decide to take part in this study, you are still free to withdraw at any time and without giving a reason. You are free to not answer any question or questions if you choose. This will not affect the relationship you have with the researcher.

Unforeseeable Risks:

There may be risks that are not anticipated. However every effort will be made to minimize any risks.

Costs to Subject:

There are no costs to you for your participation in this study

Compensation:

There is no monetary or other compensation to you for your participation in this study.

Consent:

By signing this consent form, I confirm that I have read and understood the information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Signature _____ Date _____
Pseudonym chosen for this research _____

Date