

HAIRE, CHRIS E., Ph.D. Motivation for Males to Participate in Private Middle School and High School Choruses. (2015)
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The purpose of this descriptive study was to analyze chorus participation by males in private middle schools and high schools located in central North Carolina.

Specifically, the study was designed to determine: (a) the number of males in these choruses, as compared to the number of females, and (b) the primary motivators of males' initial and continued participation.

The study included a convenience sample ($N = 82$) comprised of (a) male students who sang in elective secondary-level choruses in private schools ($n = 73$) and (b) the directors of these choruses ($n = 9$). The researcher used two researcher-designed surveys to collect data from participants: (a) the *Choral Director Survey* (CDS), and (b) the *Male Choral Student Survey* (MCSS). The CDS was completed by school choral director participants and was used to gather information regarding numbers of male and female students in choruses, confirm the elective nature of chorus classes offered, and determine grade level participation in choruses. The MCSS was completed by male student participants and was used to gather motivational data regarding their decisions to join and remain in chorus.

Male and female chorus participation data were analyzed using descriptive statistics. Males' initial chorus participation motivational data were analyzed using a factor analysis statistical procedure, and their continued participation motivational data were analyzed using a principal components analysis statistical procedure and a multiple regression statistical procedure. Two Cronbach's Coefficient Alpha measures of internal

consistency were calculated to establish the reliability of Parts One and Two of the MCSS data collection instrument. Part One of the MCSS measured male participant motivation for initial chorus participation ($\alpha = .921$, $\sigma_e = 8.961$) and Part Two of the MCSS measured chorus continued participation ($\alpha = .939$, $\sigma_e = 9.293$). Both Part One and Part Two of the MCSS measured with a high level of reliability and an acceptable amount of error.

Analysis of the male and female chorus participation data confirmed similar results from other studies. In the 11 private middle and high school elective choruses included in the present study, the number of female students exceeded the number of male students. Males comprised 31% of secondary school chorus students. Analysis of male participants' *initial* chorus participation motivational data revealed two primary factors that explained approximately 55% of the variance in male participant responses: (a) an enjoyment of music and chorus and (b) an interest in a less difficult and time consuming class than other available class options. Analysis of the male participants' *continued* chorus participation motivational data revealed two significant predictors, which the researcher titled (a) social and (b) unique class.

MOTIVATION FOR MALES TO PARTICIPATE
IN PRIVATE MIDDLE SCHOOL AND
HIGH SCHOOL CHORUSES

by

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Approved by

Committee Chair

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In memory of my courageous Father, my hero, who served his country bravely and his community well, who lived his life optimistically despite its adversities, and who loved his family dearly.

In honor of my beloved Mother, who has given unconditionally to care for her husband and her children, who has made possible their successes, who has transitioned gracefully through life's stages, and whom I will carry in my heart for a lifetime.

APPROVAL PAGE

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Rejoice always; pray without ceasing; in everything give thanks.
(1 Thessalonians 5:16-18a, NASB)

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CHAPTER I

INTRODUCTION

Background of the Problem

For most American children, music and singing are a universal part of the elementary school educational experience (Center for Educational Statistics, 1988; Forsythe, 1977; Moore, 1987; Newlin, 2007; Parsad & Spiegelman, 2011; Richmond, 1997). For students in American middle and high schools, however, music education is not as pervasive as in elementary schools. There are many music and arts education courses offered in secondary schools (National Endowment for the Arts, 1988a; Parsad & Spiegelman, 2011; Richmond, 1997; West, Diodato, Sandberg, & Brown, 1984). However, most secondary school students do not enroll in formal music activities (Adderley, Kennedy, & Berz, 2003; Austin, 1990; Carey, Kleiner, Porch, & Farris, 2002; Raiber & Teachout, 2014; West et al., 1984). More specifically, the number of students who participate in choral music classes in secondary schools is small in relation to the total number of students in these schools (Center for Educational Statistics, 1988; Mizener, 1993). Among those who do sing in secondary school choral ensembles, boys choose to do so with less frequency than do girls (Adderley et al., 2003; Adler, 1999; Demorest, 2000; Freer, 2010; Harrison, 2004, 2007; Newlin, 2007; Quinn, 2004; Rohwer & Rohwer, 2009; Stamer, 2009). Freer (2009) states, “There is a long history of empirical research and practitioner-based literature noting a decline in the number of

adolescent males who participate in choral music as they progress through middle school and into high school” (p. 217).

A number of authors have used the term ‘missing males’ to describe the dearth of male students in choral ensembles. For example, Adler (1999) has said, “music teachers face a chronic and growing problem—missing males in secondary choral programs and ensembles” (p. 29). Freer (2010) discusses, “the ‘missing males’ problem in choral music” (p. 22) and says, “the topic of ‘missing males’ in choral music has featured prominently within the profession’s journals during the past century” (p. 19). One such example, referenced by Freer, is Koza’s (1993b) journal article entitled “The ‘Missing Males’ and Other Gender Issues in Music Education: Evidence from the ‘Music Supervisors’ Journal.’”

This ‘missing males’ phenomenon was not present during America’s colonial beginnings; this phenomenon became prominent during the latter half of the twentieth century (Gates, 1989). This missing males phenomenon is not limited to choral activities, but is evident in other musical ensembles and artistic endeavors (Elpus & Abril, 2011; Kinney, 2010; Snyder & Dillow, 2013). This phenomenon is also not limited to America, but is present in other countries as well (Eerola & Eerola, 2014; Gonza’lez-Moreno, 2012; Mawbey, 1973).

What are the reasons for this missing male phenomenon in music and in singing, particularly? One possible reason may be related to the students’ gender and age/grade-level. Music education researchers have uncovered that attitudes towards music and singing differ based on gender and age/grade level. Younger/lower grade-level children

are generally more positive about music and singing than older/higher-grade level children. In addition, girls are generally more positive about music and singing than are boys (Broquist, 1961; Button, 2006; Crowther & Durkin, 1982; Elorriaga, 2011; Mizener, 1993; Siebenaler, 2008; Slee, 1968; Vander Ark, Nolin, & Newman, 1980). While males may be deterred from singing in choral ensembles due to their attitudes towards music and singing, researchers also have discovered that males are discouraged from singing in choruses by a number of factors. These factors include the male vocal change that occurs during adolescence, singing not being perceived as applicable to their occupational aspirations, and the assumption that singing is not a masculine activity (Adler, 1999, Castelli, 1986; Koza, 1993a; Legg, 2012; Phillips, 1988, 1995). In contrast, researchers also have discovered factors that encourage, or motivate, male singing, including their enjoyment of singing, the impact of the choral director, influence of their peers, etc. (Adler, 1999; Austin, 1990; Kennedy, 2002; Lucas, 2011; Rohwer, 2010; Sichivitsa, 2003; Sweet, 2010).

Need for the Present Study

Koza (1993a) asserts that a lack of males in choral ensembles is among the biggest challenges that choral directors face. Reduced participation of males in middle school music programs tends to create mixed choral ensembles consisting of more female than male singers (Koza, 1993b; Newlin, 2007). Koza goes on to say that many music educators identify the small number of males in school choruses as problematic (1993b). Choral balance problems may result from a smaller number of male voices, as compared

to the number of female voices, in an ensemble. Castelli (1986) says, “an aesthetic product of a mixed vocal group demands that all voice parts be adequately represented” (p. 26). Leonhard and House (1959), in their landmark textbook, entitled *Foundations and Principles of Music Education*, also maintain that “every effort should be made to maintain balance among parts in the selective groups Artistic results cannot be achieved when sopranos in a choral group outnumber tenors by four to one, a not infrequent situation in high school choruses” (p. 213).

Low male participation in choral ensembles also deprives many boys of the social benefits of music education (Coffman & Adamek, 2001; Cohen, 2009; Eerola & Eerola, 2014). These social benefits include the making of valued friendships (Rohwer & Rohwer, 2009) and the feeling of belonging to a valued community of friends (Coffman & Adamek, 2001). In addition, low male participation deprives many males of the aesthetic benefits of singing in a choral ensemble; the opportunity to work with some excellent choral instructors; the fun associated with being a part of a choral ensemble; and the opportunity to build positive memories (Rohwer & Rohwer, 2009). Boys who do not take advantage of choral opportunities also may be missing the opportunity to improve their sense of well-being (Cohen, 2009).

Reduced participation of males in school choral ensembles tends to extend beyond secondary school and into adulthood. Elorriaga (2011) says, “The acquisition of a certain amount of positive [singing] experiences is necessary to ensure continuation of the activity. A bored adolescent singer will probably withdraw from choral music at adulthood” (p. 320). This researcher also asserts the following.

As singers mature, the vocal experience acquired during adolescence forms an important part of their developing vocal identity that will continue during adulthood. It is likely that the quality of their singing experiences during adolescence give us a clue as to the kind of adult singers they are going to become. (p. 320)

While researching music education interests in a southwestern U.S. metropolitan area, Bowles (1991) discovered that the adult participants who expressed interest in music education had “participated in a performance organization, most likely choir during high school, and may continue to perform on a limited basis, possibly with a choir” (p. 202). The researcher also discovered that adult participants who were interested in future music education appeared to be drawn to topics with which they had previous exposure. So, if adults miss opportunities to sing in choral ensembles during their secondary school years, they may not be interested in music participation opportunities in their adult lives. Bowles stated that “early music experiences are highly influential in developing music interests and the early experiences are predictive of music involvement in later life” (p. 203).

According to research by Chorus America (2009), in addition to 41,000 school choruses in the United States, there are also 216,000 religiously-affiliated choirs and 12,000 professional and community choirs. Low participation by males in choral ensembles is not only an issue in school programs but also in community choirs and in church choral ministries. Bell (2004) reviewed the findings of multiple research studies on community choirs and concluded researchers confirm “women singers significantly outnumber the men singers, some by as much as 2:1 ratio in community-based choirs” (p.

42). Rensink-Hoff (2011) surveyed 10 community choirs from south-central Ontario, Canada, and also found that female singers substantially outnumbered male singers. Rensink-Hoff documented that in these 10 choirs there were 257 female singers, or 78% of the total singers, and 99 male singers, or 22% of the total singers. Thus, in this Canadian study, the ratio of females to males in participating community choirs was approximately 4:1. In addition to low male participation in community choirs, male participation in church music has also been found to be low. Harrison and Robinson (2012) stated that “males’ involvement in music in church is limited” (p. 161). Music educators in schools, in community organizations, and in places of worship may benefit from learning about why males choose to participate in choral music programs in smaller numbers than females. These educators may benefit by discovering what they can do to increase recruitment and retention of male choristers.

Purpose of the Study

The purpose of this descriptive study was to analyze chorus participation by males in private middle schools and high schools located in central North Carolina. Specifically, the study was designed to determine: (a) the number of males in these choruses, as compared to the number of females, and (b) the primary motivators of males’ initial and continued participation. Many government reports on music and arts education, as well as non-government research reports on music education, are based upon education programs in *public* schools (e.g., Button, 2006; Carey et al., 2002; Castelli, 1986; Center for Education Statistics, 1988; Crowther & Durkin, 1982; Elorriaga, 2011; Kinney, 2010; Mizener, 1993; Parsad & Spiegelman, 2011; Sichivitsa,

2003; Siebenaler, 2008; Slee, 1968). Due to the paucity of similar reports on private schools, the researcher of the present study chose to investigate male motivation for singing in middle and high school choruses in *private* schools. Male choral students enrolled in elective school choruses were asked to complete a researcher-designed survey concerning their motivation for joining and continuing to sing in chorus and concerning whether they plan to sing in chorus during the next school term. In addition, choral directors who lead these choruses were asked to complete a different researcher-designed survey. The *Choral Director Survey* contained questions, among others, concerning numbers of male and female students, the elective nature of chorus classes offered, and grade level participation in each school.

Research Questions

The researcher used data collected from surveys of male choral students and their choral directors to answer the following questions:

1. What were the numbers of males, as compared to females, in middle and high school choruses in private schools in central North Carolina?
2. When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina *initially* choose to participate in these ensembles?
3. When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina choose to *continue* to participate in these ensembles?

By answering these questions, the researcher intends to provide school choral directors with information about what motivates middle and high school male students to join and

to continue participating in elective school choruses. In addition, the study is designed to provide non-school choral directors with data that also may apply to choruses, choirs, chorales, and other choral ensembles in communities, churches, and other non-school organizations and institutions and to provide directions for future research on this topic. Knowing why male students participate in school choruses may permit school choral directors, and possibly other choral directors, to design their choral rehearsal, performance, and recruiting activities to encourage male participation.

Limitations of the Study

The present study is limited to data collected from researcher-designed surveys of choral director participants and middle and high school male chorus student participants from selected private schools in central North Carolina. Neither the survey sites nor the participants were selected randomly, and thus, caution must be applied when generalizing the findings from the study to the population of school choruses and male chorus students from which the sample of participants for this study have been selected. Nonetheless, information learned from the present investigation may help researchers formulate future investigations of reasons for male participation in chorus.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In this literature review, differences between elementary and secondary schools regarding the status of music and singing are examined. The researcher also has reviewed studies concerning the difference in music and singing participation based on gender. The ‘missing male’ phenomenon in choral singing from an American historical perspective is assessed, and this phenomenon is examined across both artistic genres and geographical boundaries. The researcher has also reported what others have discovered regarding attitudes towards music and singing, particularly choral singing, and how these attitudes differ by gender and by age/grade level. Finally, what discourages and, in contrast, what encourages or motivates, individuals, particularly males, to participate in choral ensembles is analyzed.

Music Education: Elementary versus Secondary Schools

For most American children, music and singing are a universal part of the elementary school educational experience (Richmond, 1997). Ryan and Andrews (2009) state, “Children sing in choral style from the outset of their school years” (p. 108). Newlin (2007) wrote, “In elementary schools across the country all students, boys and girls, are required to participate in general music classes equally” (p. 32). Parsad and Spiegelman (2011), in *A Snapshot of Arts Education in Public Elementary and Secondary*

Schools: 2009-10, reported that 94% of United States public primary schools provided music instruction, and 93% of these schools provided this education at least weekly. In addition, 88% of classroom educators incorporated arts training in their curriculum, and 92% of these educators included music instruction as a part of their curricular content. A Center for Educational Statistics report (1988), containing data, “representative of the approximately 15,250 operating school districts in the United States” (p. 2), stated that children in first through third grades average 76 minutes of music instruction per week, and children in fourth through sixth grades average 84 minutes per week. In addition, singing has been found to constitute the dominant activity in the elementary music classroom (Forsythe, 1977; Moore, 1987).

Music education for students in middle and high school is not as pervasive as in elementary school. While 29 states now require some arts education for high school graduation,

13 accept courses in domestic science, industrial arts, humanities, foreign languages, or computer sciences as alternative ways of meeting . . . [this arts education graduation requirement]. Only nine states require arts courses per se for all students; seven more require them only for college-bound or honors-program students. Further, college-bound students have little incentive to elect arts courses in high school because many colleges will not accept them for credit. (National Endowment for the Arts, 1988b)

In addition to required offerings, numerous high schools offer multiple arts classes as electives (National Endowment for the Arts, 1988a). Despite some required arts courses and numerous elective musical opportunities, most students in middle and high schools elect not to engage in formal music programs (Austin, 1990; Carey et al., 2002).

Adderley, Kennedy, and Berz (2003) found that out of a high school of roughly 2,000 students only 330 students participated in band, chorus, or orchestra courses. That means that less than 17% of the students participated in these music ensembles. Raiber and Teachout (2014) stated “the percentage of the student population involved in school music drops dramatically between the elementary and secondary levels” (p. 85). These authors characterized this drop in school music participation as a ‘troubling trend’ of music education in the United States. Richmond (1997) reports that while “access to music education in U.S. secondary schools is . . . nearly universal, . . . enrollments in the programs” is “rather modest” (p. 23).

According to a report prepared for the National Center for Education Statistics (NCES) (West et al., 1984), the percentage of U.S. public secondary schools that offered music courses in the 1972-1973 school year was 87.9%. By 1981-1982, the percentage had risen to 93%. A subsequent report, also prepared for NCES (Parsad & Spiegelman, 2011), documented that by 2008-2009 this percentage had decreased to 91%, still above the 1972-1973 percentage. Even though the percentage of public secondary schools offering music classes has risen over time, the percentage of students enrolled in these courses has declined. During the 1972-1973 year, 25.1% of public secondary school students were enrolled in music classes. By 1981-1982, only 21.6% of students were enrolled in these classes (West et al., 1984). Mizener (1993) also noted that the number of students participating in choral ensembles and other choral music classes “is relatively small at the secondary-school level” (p. 233). Furthermore, data from the same Center for Educational Statistics study noted above (1988) document that school choral music

participation in the 1986-1987 school year decreased between seventh and 12th grades. While 23% of seventh and eighth graders participated in choral music classes, only 13% of ninth and 10th graders participated. By the time students had reached 11th and 12th grades, choral music enrollment had declined to only 12%.

Choral Program Gender Participation: By the Numbers

In secondary schools, typically, boys choose to participate in choral ensembles in smaller numbers than girls. Newlin (2007) stated, “by sixth grade, when given a choice, a large number of boys have a tendency to drop out of singing as the number of girls joining choral groups remains constant or even increases” (p. 32). Demorest (2000) proposed that, “junior high is a time when many boys choose not to continue singing” (p. 38); Adler (1999) noted the same trend. Adderley et al. (2003), in the aforementioned study, found in orchestra and choir, there were twice as many female students as male students. Freer (2010) stated:

There is a long history of empirical research and practitioner-based literature noting a decline in the number of adolescent males who participate in choral music as they progress through middle school (generally grades 6-8 in the United States) and into high school. (p. 18)

The absence of males in choral ensembles is not just an issue in America; it appears to impact other ‘western’ countries as well. Harrison (2004, 2007) noted the persistent problem of the ‘missing male’ in choral ensembles in Australia. Quinn (2004) authored an article in the *Canadian Music Educator* that began “North American choral directors have traditionally had difficulty recruiting boys for choral singing” (p. 35).

Further evidence of this ‘missing male’ syndrome can be seen in the sample breakdowns of many choral music research studies. In several such studies the number of female participants substantially exceeds the number of male participants.

Two such choral music studies, one from 2002 and the other from 2003, had more female participants than male participants. Sichivitsa (2002) studied college choir participants ($N = 114$) enrolled at a large southeastern university that included 70 females but only 44 males; the numerical difference was even greater in this same researcher’s (2003) study of college choir participants ($N = 154$) that included 101 females but only 53 males.

Siebenaler’s (2006) choral music study of southern California high school students ($N = 288$) included student participants who sang in at least one of six school choruses ($n = 176$) and student participants who did not sing in one of these choruses ($n = 112$). Of the six school choruses, two were all-women’s ensembles, i.e., women’s chorus ($n = 69$) and advanced women’s chorus ($n = 38$), and only one was an all-men’s ensemble, i.e., men’s chorus ($n = 42$). The researcher stated that some participants sang in more than one chorus; however, even if all the participants in the women’s chorus were also in advanced women’s chorus, the number of women’s chorus participants ($n = 69$) would still be greater than the number of men’s chorus participants ($n = 42$).

Four choral music studies, from 2009 and 2010, also had more female participants than male participants. Stamer’s (2009) sample of Arizona senior high school choral students ($N = 515$) contained 332 females but only 183 males, and the sample in Rohwer and Rohwer’s 2009 study of Texas high school choral musicians ($N = 57$) consisted of 42

females but only 15 males. Ryan and Andrews (2009) conducted a study with singers from semiprofessional choruses. Of this study's participants ($N = 201$), 82% were female. Rohwer's 2010 study of church musicians ($N = 22$) contained 14 females but only 8 males.

The Missing Males Phenomenon

Gates (1989) compared data on singing in the United States from three historical periods: (a) the early 1700s, (b) 1933, and (c) the 1970s and the 1980s. This researcher concluded the following:

We can reasonably infer that 2 1/2 centuries ago in Boston, males dominated public singing. Data from the 1930s indicate that membership in high school choruses was equally divided between sexes. Today, males who are now young adults in our society were far less willing to be identified publicly with singing as secondary school students than were females, and the data do not bode well for a turnaround. (pp. 39-41)

Based on the 1981 National Assessment of Educational Progress report, Gates (1989) also found that by age nine, males participated in church and community musical groups in similar percentages as females: 42.4% of males participated as compared to 44.9% of females. By the time individuals reached seventeen years of age, the percentage of males who participated in church or community musical groups was much lower than that of females: 34.4% of males participated compared to 62.7% of females. Gates concluded that males in current-day America are frequently not encouraged to sing for fun and enjoyment.

Interestingly, the missing males phenomenon in music is not limited to choral activities. Elpus and Abril (2011), using data from a 2004 U.S. Department of Education Study ($N = 14,930$), determined “that 21% of American high school seniors [in public and private schools] participated in band, choir, and/or orchestra in 2004” (p. 134). Of these music students, 61.1% were female.

The *Digest of Educational Statistics 2012* (Snyder & Dillow, 2013) from the National Center for Education Statistics documented that 41.3% of ninth grade females in U.S. educational institutions participated in music, dance, art, or theater activities in 2009. However, only 27.9% of males participated in these arts activities during this same year.

Kinney (2010) investigated several non-musical predictors, including gender, of middle school students' decisions to join and to continue participating in school band programs. This researcher used student data from two underperforming middle schools in a Midwestern metropolitan school district. While gender was not a significant predictor ($p = .205$) of band enrollment for sixth graders ($N = 402$), Kinney did find that “females were 1.43 times more likely to be enrolled in band” than males (p. 343). Gender became a significant factor ($p < .05$) when the researcher analyzed band student retention. Based on data from eighth graders ($N = 340$), Kinney concluded that “females were 2.11 times as likely to be enrolled in band classes” as males (p. 344).

The missing males phenomenon in music is not limited to the United States. Mawbey (1973) conducted a study in Great Britain with students ($N = 448$), both male ($n = 154$) and female ($n = 294$), from 30 primary ($n = 330$) and 13 secondary ($n = 118$)

schools. The researcher found more girls than boys began taking instrumental lessons and concluded “it would seem . . . that the playing of an instrument is seen by children in preadolescence as more of a feminine than a masculine accomplishment” (p. 36).

Additionally, Mawbey found, both in primary and in secondary schools, boys stopped their instrumental lessons at a higher rate than did girls. In the primary schools after one school term, 34% of boys ceased instruction whereas only 25% of the girls did so. In secondary schools after one school term, 26% of boys ceased instruction versus 24% of girls. In addition, at the end of four terms, 53% of primary school boys ceased their instrumental instruction as compared to 44% of primary school girls, and 87% of secondary school boys ceased instruction compared to 56% of secondary school girls.

In Finland, Eerola and Eerola (2014) investigated whether extended music education produced social benefits in the school setting. In addition to music education classes that were nationally mandated in Finland for first through ninth graders, about 40 of the largest municipalities in the country offered extended music education classes. These elective extended music education classes are offered beginning in third grade and are available to students who both choose to take them and also pass an examination—usually a basic singing and rhythm audition. Participants in this study ($N = 735$), consisted of third graders (9 year-olds) and sixth graders (12 year-olds). A portion of these student participants was enrolled in the basic required music education classes ($n = 317$); others were enrolled in the extended music education classes ($n = 418$). Of the students in the extended music education classes, a large majority (72%) was female. Males comprised only about a fourth (28%) of these participants.

Another example of the missing males phenomenon in international music was found in a González-Moreno (2012) study of music graduate students ($N = 56$) from three schools. One school was located in Northern Mexico, one in Central Mexico, and one in Central-East Mexico. For those graduate students enrolled in a distance-learning program, males were more likely *not* to complete their music degrees than females. The researcher notes:

Three years after initial registration, 66.67% of the female student population had advanced their coursework to a second stage within [the] programme as compared to only 4.76% of the male student population; that is, 95.24% of male students had not fulfilled the academic requirements for progression within the programme. (p. 97)

Clearly, the missing males phenomenon exists not just in American choral ensembles, but across artistic education areas and across multiple countries. The extent of the missing males phenomenon is reflected in American aggregate performing arts classes, Midwestern metropolitan school band programs, British instrumental lessons, Finnish extended music education classes, and Mexican distance learning music graduate programs.

Missing Males: Why?

Why are males missing from secondary school choruses? Are male students less adept in musical pursuits? Are they less musically talented than girls, or do their lower rates of participation result from other forces? Newlin (2007) studied third grade boys and girls to determine if music aptitude contributed to the smaller number of males in school choral ensembles. Using Gordon's *Intermediate Measures of Musical Aptitude*

instrument, four classes of students from a northeastern US public elementary school were assessed. Newlin found “no significant difference in the means of the composite scores between the boys’ and girls’ musical aptitude when tested at the third grade level for this population” (p. 33). In addition, according to the American Association of University Women’s analysis (1999), “girls are not *inherently* more talented in . . . music” than boys (p. 7). So, if the shortage of males in choral ensembles is not due to males having less aptitude for music than girls or being less musically talented than girls, why do middle and high school boys not choose to participate in choral ensembles to the extent that girls do?

Attitudes about Music and Singing

One reason fewer boys participate in music, and more specifically in chorus, than do girls could emanate from the secondary school boys’ attitudes about music and singing. Researchers have discovered that attitudes about music and singing differ by gender and age/grade level. Broquist (1961) compared girls’ and boys’ attitudes about music. Participants ($N = 2594$) were students from 20 urban and rural elementary schools in southern Wisconsin. Borquist discovered that in each grade, girls had more positive attitudes about music than did boys.

Vander Ark et al. (1980) investigated elementary children’s attitudes about music with third- through sixth-grade participants ($N = 5,642$) from 16 Midwestern suburban schools. The researchers discovered that students’ attitudes about singing, and attitudes toward other musical activities, declined significantly ($p \leq .001$) as the students progressed through school grade levels. The mean attitude toward all music activities

investigated—singing, listening to music, playing music and reading music—decreased with each successive grade. The researchers also discovered that participants from homes with low and high social statuses, based on their parents' or guardians' occupation, had lower attitudes toward singing, playing, and listening to music than did those participants from middle social class homes ($p \leq .001$).

Siebenaler (2008) investigated the attitudes of third ($n = 69$), fourth ($n = 99$), and fifth grade ($n = 81$) students ($N = 249$) from two public schools in Austin, Texas. The researcher administered a questionnaire to both males ($n = 110$) and females ($n = 139$). When asked, “Do you like to sing?” (p. 53), a higher percentage of females (94.4%) than males (81.6%) responded positively. In addition, a higher percentage of females (72%) than males (57%) responded that they would “keep singing in choir, even if . . . [they] didn't want to be a professional singer” (p. 53). Finally, a higher percentage of females (84%), than males (78%), believed that “singing was for both genders” (p. 53). Siebenaler also found that school music was less popular with fifth graders than with third and fourth graders. The researcher commented, “the grade level differences consistently show the decline in attitudes toward school music in fifth grade” with the older students possibly feeling “that singing and music is for the talented few” (p. 55).

Mizener (1993) surveyed third- through sixth-graders ($N = 542$) from seven urban schools and studied their attitudes toward singing and choir participation. Data were collected using both a survey and, from selected participants, a tape-recorded singing ability assessment. Mizener found that while 78% of all participants (i.e., including both boys and girls) enjoyed singing, this percentage decreased with each successive grade

level ($p < .001$). While 87% of third through six grade girls enjoyed singing, only 64% of the corresponding boys enjoyed it ($p < .001$). Only 47% of all participants registered an interest in singing in a choral ensemble. Girls (55%) had a significantly higher interest ($p < .001$) in choral singing than boys (33%). Girls were also more likely than boys to believe that they sang well ($p < .002$). In addition, Mizner found that “most students at all grade levels liked singing under certain circumstances” (p. 241) and most of the sixth graders, at least at times, enjoyed singing with the radio. However, the researcher discovered that positive attitudes towards singing and choir participation decreased when grade level increased. The majority of participants believed singing to be appropriate for both sexes, and “among sixth graders of both genders and boys of all grades, the most favored accompaniment for classroom singing was records or tapes” (p. 243). Mizener discovered that among the sixth-grade and the male subjects, drums were the favorite instrument to play while singing.

Similar results have been uncovered in studies from the United Kingdom. Slee (1968) investigated attitudes of 12 to 14+ year old students ($N = 513$) toward various school subjects. The participants, boys ($n = 265$) and girls ($n = 248$), came from 17 classes and nine schools. This sample was designed to be representative of a population of students in maintained secondary modern schools in a Lancashire County Borough. The researcher, in this British study, discovered that boys held unfavorable attitudes towards music, while girls enjoyed this school subject. The girls’ favorable attitudes became even more positive as they got older.

Crowther and Durkin (1982), from the University of Kent in England, conducted a study with participants ($N = 232$) who were randomly chosen from the 1400 students at a comprehensive school located in the southern part of the country. The study sample, from a school in a rural town, included both boys ($n = 128$) and girls ($n = 104$) who had various academic and musical abilities. The participants ranged in age from 12 to 18 years old. In an effort to investigate gender- and age-associated variations in “musical behavior, interest, and attitudes toward music” (p. 131), the researchers administered two short surveys to these secondary school participants. The first survey was used to assess participants’ musical interests; the second survey was used to assess their attitude towards music. The researchers discovered girls to be significantly more involved in musical activities than boys, both in playing an instrument ($p < .0001$) and in singing in a choral ensemble ($p < .0002$). When girls specified a musical endeavor, it was usually a social one, i.e., singing in a choral ensemble, playing an instrument in an orchestra, or attending a musical concert. Boys, in contrast, listed more individual or small group endeavors, such as playing a solo instrument or listening to music recordings. Crowther and Durkin also discovered significant differences in attitudes towards music based on gender ($p < .001$). According to mean scores, female participants had more positive attitudes about music than boys at all grade levels.

Button (2006) conducted a related investigation. Study participants ($N = 240$), including both music teachers ($n = 24$) and music students ($n = 216$), were recruited from two local education authorities from northeast England. The participants represented six secondary schools. Male and female teachers were represented equally ($n = 12$ for each

gender). Likewise, student participants consisted of an equal number of males ($n = 108$) and females ($n = 108$). Students ranged in age from 11 to 14 years old. To gather data, Button used a survey comprised of open-ended questions followed by semi-structured interviews. Student participant responses varied widely by gender. While 65.5% of female student participants responded that they “like[d] to study music,” only 34.4% of male student participants responded in kind. Similarly, while 67.2% of female student participants said they “felt that it is important to study music in school,” only 32.2% of male student participants answered accordingly, and while 59.4% of female student participants “considered music to be valuable,” only 40.5% of male student participants agreed (p. 423). Further analysis demonstrated that female student participants were significantly “more enthusiastic” than male participants about “singing ($t = 3.56, p < .001$), instrumental work ($t = 3.32, p < .001$) . . . music theory ($t = 4.10, p < .001$) and . . . musical knowledge ($t = 2.73, p < .01$)” (p. 425). On the other hand, male participants were significantly, “more enthusiastic about composing ($t = 2.33, p < .05$) and technology-based music ($t = 2.48, p < .05$)” (p. 425) than girls.

Elorriaga (2011) conducted research at a public Spanish secondary school near Madrid to learn how boys who sing develop their gender identity. Participants ($N = 90$) included students ($n = 75$), males and females from age 12 to 16, and adults ($n = 15$), parents and teachers. The student participants were all involved in some aspect of the school’s choral program. Elorriaga observed participants during classes and rehearsals, interviewed them, and conducted focus groups. In addition, the researcher analyzed: (a) recordings of individual and group musical rehearsals and performances, (b) musical

scores, and (c) vocal exercises. Elorriaga found that student participants seemed to exhibit musical perceptions differently based upon their gender. Specific instances mentioned include a boy who appreciated the maturity of his changing voice. Other boys enjoyed singing loud and with energy. Some boys characterized their voices as strong. In contrast, girls tended to comment on the emotions and feelings of songs. One girl mentioned that singing allowed her to “make new friends” (p. 324). Two adults interviewed commented similar perceptions. One said, “during the rehearsals, boys demanded a more active role and personal interaction with you, but girls were much more focused on listening to the music. With boys it is like singing ‘outwards’ and with girls like singing ‘inwards’” (p. 323). Another adult commented, “I think the boys have realized that they have a relevant position within the choir. Their way of singing is powerful and resolute” (p. 323). The boys tended to not like their higher register or head voice. They perceived it as childish and feminine and not in keeping with their male maturation process. They considered the lowness of their voices to be a positive quality and enjoyed demonstrating their lower, or chest, voices for others in their class. As Elorriaga (2011) describes it, “their new changed voices had become a tool of social power” (p. 326).

Discouraging Factors

In addition to older boys’ attitudes about music and singing, are there specific factors that discourage these boys from participating in choruses? The gender imbalance in late primary and secondary school age choral ensembles may be attributable partially to the male vocal change. Killian (1999) investigated whether or not boys’ voices were

changing earlier than previously determined. Working with fifth- and sixth-grade male participants from suburban schools, Killian concluded that many of the fifth- and sixth-grade participants' voices had begun to change. By comparing the research with that of Rutkowski (1984), Killian concluded that boys' voices may be changing earlier than had been revealed by previous studies.

Adler (1999) investigated pedagogical practices of music teachers as they relate to the changing male voice and retention of males in choral ensembles. Adler's participants were 70 elementary and secondary school music teachers from the United States and Canada. Adler discovered that 84.8% of participants believed their formal education had not sufficiently trained them to work with boys' changing voices. Of the participants who felt their training in the topic was adequate, 80% were male.

Rutkowski (1981) believes that junior high boys lose interest in singing and in participating in chorus due mainly to their lack of confidence in their voices. She also believes that these adolescents do not feel successful "because they are asked to sing parts inappropriate to their vocal capabilities. Therefore, many believe they cannot sing, will not admit it, and decide that singing should no longer be a part of their school activity" (p. 15).

Castelli (1986) investigated student attitudes concerning items that might influence male participation in secondary school choruses. All student participants attended Havre de Grace High School, a part of Maryland's Harford County Public School System. These students represented a variety of ethnicities, came from a spectrum of economic backgrounds, and were from urban, suburban, and rural

residences. Of the 726 total students at the school, 375 were male and 351 were female. All students were given the questionnaire, and this instrument was completed and returned by 342 males and 331 females. The researcher randomly selected 250 completed questionnaires returned by males ($n = 250$) and the same number of completed questionnaires returned by females ($n = 250$) for data analysis ($N = 500$). One of the sections of the questionnaire was to be completed only by male participants. They were asked to complete this section only if they had not chosen to sing in the school chorus. Of the 250 male responses, 200 indicated that they had not chosen to sing in chorus. These males were asked to rank five possible reasons why they decided not to participate in the chorus. Of the five choices given on the questionnaire, 42% of these participants indicated that the male vocal change was their primary reason for not singing. Thirty-six percent responded that singing was not applicable to their occupational aspirations. Thirteen percent indicated they did not enroll in chorus because they did not perceive singing was masculine. Finally, peer pressure was selected by five percent as their primary motivation for not participating in chorus.

Koza (1993a) reviewed choral methods texts, both books and articles, published from 1982 to 1992, and used by colleges to teach choral educators and noted four reasons, compiled from these sources, for the missing male phenomenon:

- The perception that singing is not an appropriately masculine activity deflects boys away from choral programs.
- Choral programs have not catered to male interests and preferences; successful directors/teachers take male interests into consideration; unsuccessful ones do not.
- The voice change sidetracks boys.

- Boys avoid singing because they perceive it to be unrelated to their future career plans. (p. 51)

Demorest (2000) suggests that boys changing voices heighten the typical adolescent insecurity, thus, contributing to boys' decisions not to enroll in choruses. The author also notes peer pressure as an increasing influence on boys during this developmental stage, "and in the eyes of an adolescent boy, choir may not have the prestige of other activities" (p. 38). A lack of male role models in choral music is another reason given why boys do not sing in choruses.

Legg (2012) conducted a quantitative and qualitative investigation into early adolescent singing in the United Kingdom. Participants included both males and females. From data collected via focus groups, the researcher discovered several themes—one of which was the dichotomy of the students' "willingness to experiment with new ideas and activities and . . . [their] feelings of anxiety and vulnerability that this experimentation can bring about" (p. 176). The researcher continued by noting that, "vulnerability to humiliation, in particular, appears to be an acute risk where singing participation is concerned" (pp. 176–177). Another theme from Legg's (2012) research was the student participants' perception that singing was an activity for girls; participants were "conscious of the challenges to masculinity that singing might present" (p. 177). They also recognized peer pressure was used to sustain such stereotypical perceptions. Finally, the researcher noted yet another force keeping boys from singing, as reported by one student participant, a force more powerful than peer pressure—adult ridicule.

Ryan and Andrews (2009) examined music performance anxiety in choral musicians. Study participants ($N = 201$) all participated in one of seven semiprofessional choruses; the researchers considered a choir ‘semiprofessional’ if it performed difficult repertoire and was usually financially compensated for its performances. While the age of the majority of participants was between 20 and 50, the youngest participant was 17 and the oldest was 70. Participants completed a hardcopy survey concerning their performance anxiety, their ensemble conductors, and their anxiety coping mechanisms. The survey included both open- and closed-end questions. Fifteen percent of participants responded that they dealt with performance anxiety frequently and 57% responded that they dealt with performance anxiety during half or more of their concerts. Ryan and Andrews also found “a low ($r = -.02, p < .01$) but significant negative correlation between severity of anxiety and years performing with a choir” (p. 112). So, the fewer years a participant had sung in a chorus, the higher their anxiety level tended to be. The researchers concluded that singers who suffer with higher performance anxiety might decide to drop out of optional choral involvement. Because the researchers did not include gender as an element in this research, they did not conclude that anxiety caused more males than females to drop out of chorus. However, the researchers did point to anxiety being a factor in individuals discontinuing their involvement in choral performance opportunities.

Freer (2009) worked with two choral music educators at a kindergarten through 12th-grade school in the southeastern United States to coordinate a research study about male chorus involvement. After discussing the goals of the study with Freer, the school’s

music educators selected secondary school males ($N = 6$) to participate in a series of three successive semi-structured interviews with Freer. When reporting the results of the study, the researcher chose to disclose, in narrative form, interview discussions with the youngest participants ($n = 3$). These three participants chose the pseudonyms Danny, Clark, and Billy.

The interview narratives compiled by Freer (2009) exposed several themes associated with factors that discourage secondary school males from singing in chorus. Danny believed that some males no longer sing in school chorus because of their changing voice. Similarly, Clark was frustrated with the constant cracking in his voice and thought that frustrations and embarrassment with the male vocal change was an important reason why middle-school males choose not to sing in chorus. Another factor that appeared to discourage males from chorus participation was the shortage of males who were already in chorus. Danny chose not to be in his elementary school chorus “because there were only about three or four guys in there” compared to “about twenty or thirty girls” (p. 220). After being the only male in chorus while he was in both sixth and eighth grades, in ninth grade Clark dropped out of chorus and instead enrolled in band; Clark had male friends in band. Lack of family musical motivation was also cited as a discouraging factor for males. Billy discussed how his father only sang softly during congregational singing at church. When Billy asked his father why he did not sing louder, his father had no answer for him. In addition, even though Billy’s younger sister was a member of their school’s middle school chorus, Billy said that she did not sing. Finally, school scheduling conflicts were mentioned by both Clark and Billy as reasons

for not singing in their school chorus. Billy was interested in sculpting, and therefore, chose to take art. Since he was only allowed to take one arts class, he could not also enroll in chorus. Likewise, after Clark decided to play in band, his school schedule did not permit him to also sing in chorus.

Siebenaler (2006) investigated what motivated students to continue singing in their high school chorus. Participants ($N = 288$) were students at a large, suburban, southern California high school. Using a multiple regression analysis, Siebenaler identified eight independent variables that accounted for 88.5% of the variance regarding students' decisions to continue to sing in a high school chorus. Two of these eight variables ($p < .01$), elementary school composing/improvising and frequency of recordings purchased, had an inverse relationship with chorus participation. To further highlight one of these variables, the researcher documented that 86.1% of participants who currently sang in a high school chorus disliked composing/improvising in elementary school. However, only 80.2% of participants who did not currently sing in their high school chorus disliked composing/improvising in elementary school.

Motivating Factors

Researchers have also investigated what *motivates* people to participate in musical activities. Austin (1990) studied how fifth- and sixth-graders' musical self-esteem motivated their participation in both school and non-school music activities. Using a multiple regression model, Austin concluded that self-esteem of musical ability was a significant predictor of musical involvement ($p < .001$). This factor predicted 18% of the variance in the participants' school musical involvement and 17% of the variance in their

non-school musical involvement. The researcher also discovered a significant ($p < .01$) difference in musical self-esteem based on gender; the mean female score was higher—meaning female participants tended to have higher musical self-esteem. Austin suggested future researchers use regression models to test how other variables, in addition to music self-esteem, affect student music participation. The present researcher proposed using an ordinal regression model to test the impact of various motivational items on the school chorus involvement of middle and high school males.

In a study discussed earlier in this review, Siebenaler (2006) also used multiple regression analysis to investigate what motivated students to pursue music-making, or more specifically, in this case, to choose to sing in a high school chorus. All participants ($N = 288$) were students at a large, suburban, southern California high school. The school's ninth- through 12th-grade enrollment totaled approximately 3,000. The researcher developed a student survey that was administered to two groups of participants. One participant group ($n = 176$) was comprised of students who were enrolled in one of six school choruses: women's chorus, advanced women's chorus, men's chorus, show choir, jazz choir, and concert choir. The remaining participant group ($n = 112$) was comprised of students who did not participate in a school chorus.

Using a multiple regression analysis, Siebenaler identified eight independent variables that accounted for 88.5% of the variance regarding students' decisions to continue to sing in a high school chorus. These eight variables were: (a) playing instruments in elementary school, (b) composing/improvising in elementary school, (c) singing songs in elementary school, (d) having friends who participate in music, (e)

liking to performing music, (f) being complimented as a good musician, (g) frequency of purchasing recordings, and (h) liking to perform music for others. All of these items “were significant predictors of continued participation in school music” (p. 4).

However, only six of the eight items had a positive relationship with chorus participation: (a) playing instruments in elementary school, (b) singing songs in elementary school, (c) having friends who participate in music, (d) liking to perform music, (e) being complimented as a good musician, and (f) liking to perform music for others. The researcher highlighted some of these positive predictors by comparing the responses of study participants who currently sang in a school chorus with the responses of those who did not currently sing in a school chorus. While 28.5% of participants currently in chorus enjoyed playing percussion instruments in elementary school, only 12.6% of participants not currently in chorus enjoyed this activity. Eighty-nine and four-tenths percent of participants in chorus enjoyed singing songs in elementary school; however, only 46.3% of participants not in chorus enjoyed this elementary school music activity. Sixty and eight-tenths percent of participants in chorus responded that they had friends who also sang in chorus, but only 31.5% of participants not in chorus responded likewise. Of study participants in chorus, 63.6% had been complimented as good musicians, but only 22.3% of participants not in chorus had been complimented as good musicians. Finally, the researcher documented that of the participants in chorus 82.4% of them enjoyed performing for others, while 27.7% of participants not in chorus responded likewise.

Kennedy (2002) investigated junior high male participation in choral music. Participants included members of a 27-voice, eighth and ninth grade choral ensemble from a suburban American junior high school; the researcher used both interview and observation techniques. Participants ($N = 15$) were comprised of male students ($n = 11$), female students ($n = 3$) and the chorus teacher ($n = 1$). Kennedy discovered that participants joined the choir as a result of (a) their enjoyment of singing; (b) the impact of the choral director—including the director's recruiting efforts, her instructional style, and likability; and (c) the influence of their peers. The researcher found that range-appropriateness of repertoire for the male subjects' voices did not appear to impact subjects' enjoyment of the choral experience. In contrast, the researcher found the repertoire's musical style to be an important factor. Participants desired to sing repertoire from their preferred musical styles. Kennedy also documented that participants enjoyed the act of performing and the limited amount of written assignments in the course. Another motivator of note was the musical encouragement of the boys' parents. However, the most mentioned motivators of the choral experience were social ones. Participants valued friendships they developed in the ensemble, the experience of belonging to a group, and opportunities for group excursions away from school.

Sichivitsa (2002) also documented the motivational influence of parental encouragement. This researcher administered a questionnaire to participants who were enrolled in one of three college choral ensembles—Concert Choir, Men's Choir, or Women's Choir—at a large southeastern university. These participants ($N = 114$), included both males ($n = 44$) and females ($n = 70$). The research results ($p < .05$)

suggested that students were motivated to continue to sing in choral ensembles as a result of their parents' support and as a result of their choral teacher's professionalism, friendliness, and high personal standards. The researcher suggested that music educators include more parents in children's music concerts and activities in order to motivate the children toward future musical pursuits.

Sichivitsa (2003) investigated what motivated college choir members to continue their involvement in musical activities. Participants were student choir members ($N = 154$), both male ($n = 53$) and female ($n = 101$) from a large public university in the American south. Of the 154 surveys administered to participants, 150 were returned fully completed. Based on the data gathered, Sichivitsa was able to explain 50% of the "variance of musical intentions" ($p < .05$) with two factors: (a) how highly the participants valued music, and (b) how socially integrated they were in the choir (p. 336). Participants who valued music highly and who were socially integrated into the choir were more likely to continue to pursue musical endeavors in the future. Of these two factors, "the value of music was the strongest direct predictor of musical intentions" (p. 338). The researcher went on to recommend additional investigation into what motivates students to participate in choirs. The present researcher intends to pursue this recommendation.

Rohwer (2010) investigated the participation perceptions of church choir members. Participants ($N = 22$) were both male ($n = 8$) and female ($n = 14$) and ranged in age from 28 to 79 years. Ethnically, participants were American Indian ($n = 1$) and Caucasian ($n = 21$) and represented three churches located in a suburb of a large

metropolitan city in a southwestern state. The churches were affiliated with three different denominations (Congregational Christian, Lutheran, and Methodist). Rohwer, using a semi-structured interview, discovered, like members of community choirs, these church choir members were motivated by both social and musical factors. However, in addition, these church choir members were also motivated by spiritual factors. While the present researcher is investigating participation motivators in private school settings rather than church settings, some of these private schools are religious in nature. Therefore, some motivating factors of church choir members may also be relevant to chorus members at religiously-oriented private schools.

Sweet (2010) conducted a case study to learn about eighth-grade boys' perceptions of singing and choir participation. Sample participants ($N = 5$) were a subset of the nine students enrolled in a daily choir class conducted by the researcher. These participants were also singers in an auditioned after-school choir, named Choralier Men. Primary data collection techniques included one formal group interview, informal field notes, concert programs, difficulty level of choral music, and the author's personal insights and observations while serving as the boys' choir teacher and as a participant observer. The researcher discovered that participants enjoyed singing in the daily choir because it was fun, it allowed them to express themselves emotionally, it allowed them to demonstrate their talent, it was a source of pride, and it was different from their other school classes. Participants also reported they enjoyed the attention from females that participation in choir afforded them. In addition, the participants expressed a positive attitude about participating in Choralier Men. Participants liked the way they were

challenged by difficult music, they appreciated the teamwork atmosphere of the ensemble, had fun participating, were pleased that everyone in the ensemble worked hard at achieving the goals of the group, and were fond of the faster pace of learning that occurred in this ensemble.

Freer's (2009) study, mentioned earlier in the present review of related literature, included six participants, the youngest three of whom chose the pseudonyms Danny, Clark, and Billy. Their interview narratives expose multiple themes that relate to the participants' motivations to sing in school choruses. One of the themes evident in these interviews was the importance of social connections and personal relationships. One of the reasons Danny joined chorus was because the middle school chorus director personally invited him. Another reason he decided to join was because a number of his friends were singing in chorus. Noting the impact of social peer connections, Danny believed that the most prominent way to get boys to sing in chorus was to have other boys recruit them. Like Danny, Clark mentioned the importance of social factors in chorus. Clark chose to sing in chorus in sixth grade because he was new to the school and was hoping to use chorus to make friends. Even though, during his sixth-grade year, he was the only male singer in chorus, Clark still enjoyed his relationship with his teacher. When he was in seventh grade, two of his close friends sang with him in chorus that made involvement in chorus more appealing, according to Clark. Even Billy, who did not sing in a chorus, said that "maybe if I met somebody who was really nice and he was doing the chorus and he kinda motivated me to do it, I would" (Freer, 2009, p. 230). Billy went on to say that if other males were singing in chorus, it would probably be fun

for him as well. He said that having time to connect with friends would have helped him to enjoy and be motivated in class. Freer explained that “for the singers I profiled, the goal of musical excellence was prominent, but only when it was achieved with friends and comrades. They appreciated teachers who allowed for those friendships to take hold during rehearsal time and concert preparation” (p. 234).

Another common theme that motivated male student involvement that surfaced in Freer’s study, was participants’ enjoyment of singing and performing. Danny stated that he initially decided to sing in this chorus because he believed singing and performing in front of others might be fun. Clark also commented that he enjoyed singing.

Freer highlighted the participants’ needs for ownership and belonging. He commented, “These boys desired opportunity for autonomy, chances to interact with peers, personal attention from their teacher, activity-based learning experiences, and the expectation of high musical standards” (p. 234). Specifically, a desire for autonomy was suggested by Danny when he recommended that choral music educators make chorus more appealing for secondary school males by allowing the males to choose a portion of the chorus repertoire.

Within Freer’s discussion, the theme of musical self-perception can be seen in Danny and Billy’s interviews. Danny, who sang in chorus, remembered that people had told him that he had a good singing voice. Billy, who played multiple sports, said that he was confident in his athletic skills because he knew he could play sports. He stated that his sports coaches encouraged and complimented him when he did something well and then pushed him to play better. In contrast, he did not know if he could sing. However,

he said that had a teacher told him he had a nice singing voice and encouraged him to sing in chorus, he probably would have joined.

A motivational theme in Freer's research of musical male role models was expressed by both Clark and Billy. Clark remembered how impressed he and other guys were when high school male choral members assisted teachers in the lower school; he said that he and other males asked these upperclassmen "a lot of questions about changing voices" (p. 225). Clark was especially impressed by one of these upperclassmen in particular: "He was the best singer, and I thought it was really cool just to be able to have fun with singing" (p. 226). Billy, while he did not sing in school chorus, did play trumpet in the school band. He was impressed when the middle-school band came to the lower school and performed for him and his classmates.

Finally, another motivating theme from Freer's interviews involved equipping students to deal effectively with the adolescent male's changing voice. Danny suggested that choral educators make sure choral repertoire contained vocal ranges that were appropriate for the adolescent male's changing voice. Having separate male and female choruses during middle school was attractive to Danny because it would allow guys to attempt singing things they would not sing if they thought a mistake would result in girls making fun of them. Clark stated that he was interested in learning about the male vocal change and what causes a male's voice to crack during puberty. Billy also said that he would be interested in learning about the adolescent male's vocal anatomy.

Lucas (2011) investigated adolescent male attitudes about singing and choral ensemble participation in Oklahoma and Kansas. Study participants ($N = 101$) were

seventh and eighth graders from six different schools. Lucas concluded that the highest rated motivator of male participation in choir was the fun factor. “I am in choir because it is fun” (p. 49) had the highest mean of nine items the researcher investigated for their role in motivating male choir participation. Lucas concluded that additional research was needed to study perceptions of adolescent males in other geographical locations and to discover what makes choral singing fun for junior high males. The present researcher seeks to supplement Lucas’s findings by collecting and analyzing data on the choral participation motivating items of male students from a different geographical location.

Adler (1999) investigated pedagogical practices of music teachers and reported that music teacher participants found several techniques to be beneficial in helping boys through the process of their vocal change, including:

- (1) Spend time in ear training, vocal training, and register training, to help boys re-tune their ears and bodies to the new sounds they were producing (30.8%).
- (2) Give students an understanding of the voice change process and their personal place within it (26.9%).
- (3) Allow flexible shifting between parts of the score, with frequent range testing to know what the boys’ ranges are at a given time (23%). (p. 31)

Adler drew several conclusions regarding negative societal gender roles connected to singing:

If we do not teach students that being a male with an unchanged voice is a bad thing; if we are honest with all of our students about the voice, and about the neutrality of singing; if we are firm with those students who ridicule their unchanged voice peers (from the point of view that they are wrong to do so both factually and morally); and if we educate boys to use their voices efficiently; then

they might develop more positive attitudes toward themselves as singers as well as towards singing as an acceptable activity for them. (p. 30)

Summary of Review of Literature

Researchers have documented that music education, and particularly singing, is prominent in elementary school curricula and is a part of the U.S. elementary experience for most children. While musical opportunities are widely available in U.S. secondary schools, most students do not take advantage of these courses. Researchers have also discovered boys choose to participate in secondary school choral, and some other musical ensembles in smaller numbers than girls. In colonial America the choral landscape was much different. In that cultural environment, most public singing was done by males. However, males' dominance in choral singing decreased over time, as female choral singing increased. The missing males phenomenon in music is not only limited to U.S. choral activities. Researchers have found instances where females outnumber males in band, orchestra, dance, theater, and other artistic endeavors, as well as in British, Finnish, and Mexican music education opportunities.

Though no significant differences have been found in music *aptitude scores* by gender, music and singing *attitudes* do differ by gender. Girls, both in the U.S. and in other countries, have been found to have more positive attitudes about singing, as well as other musical activities, than do boys. While investigating why males participate less frequently in choral music, researchers have uncovered both factors that deter males from participating in choral ensembles and factors that motivate males to participate in choral ensembles. Discouraging factors included school scheduling conflicts, the male vocal

change, boys' lack of confidence in singing, the belief that singing is not applicable to boys' occupational aspirations, and the perception that singing is not masculine.

Motivating factors included an enjoyment of singing, liking to perform music, the influence of peers, the impact of the choral director, and the influence of parents. In the present study, the researcher will further investigate those factors that motivate males.

He will also attempt to distinguish what factors most influence males' decisions to initially join a middle or high school chorus as compared to those that best predict males' decisions to continue to sing in chorus.

CHAPTER III

METHODOLOGY

Restatement of the Purpose of the Study

The purpose of this descriptive study was to analyze chorus participation by males in private middle schools and high schools located in central North Carolina.

Specifically, the study was designed to determine: (a) the number of males in these choruses, as compared to the number of females, and (b) the primary motivators of males' initial and continued participation. Male choral students enrolled in elective school choruses were asked to complete a researcher-designed survey concerning their motivation for joining and continuing to sing in chorus and concerning whether or not they plan to sing in chorus during the next school term. In addition, the choral directors who led these choruses were asked to complete a different researcher-designed survey. The *Choral Director Survey* was used to gather information regarding numbers of male and female students, confirm the elective nature of chorus classes offered, and determine grade level participation in each school. The researcher used data collected from surveys of male choral students and their choral directors to answer the following questions:

1. What were the numbers of males, as compared to females, in middle and high school choruses in private schools in central North Carolina?
2. When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina *initially* choose to participate in these ensembles?

3. When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina choose to *continue* to participate in these ensembles?

By answering these questions, the researcher intended to provide school choral directors with insight into what motivates middle and high school male students to join and to continue participating in elective school choruses. The researcher also sought to provide non-school choral directors with results that might apply to choruses, choirs, chorales, and other choral ensembles in communities, churches, and other non-school institutions, and to provide directions for future researchers on this topic. Knowing why male students participate in school choruses may permit school choral directors, and possibly other choral directors, to design their choral rehearsal, performance, and recruiting activities to encourage male participation.

Sample Description

The study included a convenience sample ($N = 82$) comprised of (a) male students who sing in elective secondary-level choruses in private schools ($n = 73$), and (b) the directors of these choruses ($n = 9$). All schools were private, religiously-affiliated schools located in central North Carolina. All student participants were drawn from 11 school choruses. Seven of the nine choral director participants taught one of the 11 school choruses. The other two choral director participants each taught two of these school choruses. Middle schools included grades six through eight and high schools included grades nine through 12. The researcher chose these schools because (a) of their geographical location, (b) they had one or more elective school chorus(es), and (c) the

researcher could obtain permission from the school administrators to conduct the study at their sites. Choral director participants were restricted to those who consented to participate. Student participants were restricted to (a) those adult male students (i.e., male students who are 18 years old or older) who consented to participate, and (b) those minor male students (i.e., male students who were 17 years old or younger) who assented to participate and whose parent or guardian consented to their son's participation.

Measurement Instruments

The researcher used two hardcopy surveys to collect data from participants. The *Choral Director Survey* (CDS) (see Appendix A.1) was completed by the choral director participants. The *Male Choral Student Survey* (MCSS) (see Appendix A.2) was completed by the male student participants.

Data collected from the CDS were used to determine (a) the total number of singers in each chorus; (b) how many of these singers were male and how many were female; (c) the percentage of male students; (d) how the choral director referred to the chorus (i.e., middle school chorus, middle and high school chorale, upper school chorus, school chorale, etc.); (e) if the chorus was an elective course for students (i.e., was not a specific course required for graduation); (f) what grade levels of students were eligible to sing in the chorus; and (g) if the choral director considered the chorus primarily a middle school chorus, a high school chorus, a combination middle and high school chorus, or some other category of chorus.

The *Male Choral Student Survey* (MCSS) was divided into three parts. Part One of the MCSS addressed why student participants *initially joined* their present school

chorus, Part Two of the MCSS addressed why student participants *continue* to sing in their present school chorus, and Part Three of the MCSS addressed if student participants planned to reenroll in their present school chorus for the next school term. Male student participants responded to all three parts using a five-point Likert-type rating scale. Parts One and Two of the MCSS each consisted of a stem followed by a list of 52 items to which male student participants responded using the five-point scale. The Likert-type scale response options for these items were “*Very Important*,” “*Important*,” “*Undecided*,” “*Not Very Important*,” and “*Not Important at All*.” Part Three of the MCSS contained only one item for participants to assess. The Likert-type scale response options for this question were “*Strongly Agree*,” “*Agree*,” “*Undecided*,” “*Disagree*,” and “*Strongly Disagree*.”

The researcher used Part One of the MCSS to determine how important the 52 items were in motivating male student participants to initially join the chorus. The researcher used Part Two of the MCSS to determine how important the same 52 items were in motivating male student participants to continue to enroll in chorus during the next school term. Even though some male student participants were ineligible enroll in chorus during the subsequent school term due to either their grade levels or possibly some other reasons, the researcher instructed these male student participants to assume that they were eligible to sing in the chorus during the following school term.

When answering Part Three of the MCSS, the male student participants, once again, were instructed to assume that they were eligible to sing in the chorus again during

the following school term. Given this assumption, each student participant was asked to indicate how likely he was to sing in the chorus during the next school term.

In preparation for the present study, the researcher completed a 2013 pilot study that used a Delphi-like methodology (Dalkey, 1963). In this pilot study, the researcher surveyed middle and high school males from two private schools. One of these private schools was religiously affiliated while the other school was independent. Both schools were located in central North Carolina and were chosen because of their geographical proximity to the researcher, and because the researcher was able to obtain the required permissions, consents, and assents to conduct the study in each location.

During this pilot study, the researcher asked male chorus students one open-ended question: “What initially caused you to sign up for this chorus class?” The researcher also instructed participants to list all the reasons that came to their minds. When reviewing the raw data, the researcher grouped participant responses into 39 distinct motivating items (see Table 1). Some of these 39 items were identified by multiple participants; others by only one participant. These items were used to inform the present study as outlined below.

Validity for Parts One and Two of the *Male Choral Student Survey* was established via a three-step process, including (a) the pilot study responses, (b) a thorough check of related literature, and (c) verification by five secondary school music education experts (Teachout, 1997).

Table 1

Thirty-nine Items Identified from the Pilot Study

Item	Number of Participants Who Identified This Item
Like to sing	19
Thought it would be fun	15
Friends sing in this chorus	13
To improve my singing ability	12
Best alternative of available options	11
Chorus teacher influence	10
Family influence	9
Like to go on trips	5
Previous experience in choral ensemble	5
Enjoy music	4
Like performance attire	4
Like to perform	4
Became aware that males could join chorus	3
Enjoy being a part of the group	3
Guys who can sing are attractive to girls	3
I sing well	3
It's relaxing	3
Light workload in this class	3
Recommended by others	3
There are a lot of girls in chorus	3
To enhance my college application	3
Wanted to improve my musical knowledge	3
Chorus is not sedentary	2
Get to miss other classes	2
Positive reputation of this chorus	4
Presence of other males in this chorus	2
Religious calling	2
Always wanted to sing in a chorus	1
Cool guys were singing in chorus	1
Didn't have to meet any skill level requirement	1
Free food	1
Like repertoire this chorus sings	1
Non-choral teacher influence	1
Participation in chorus helps in other academic areas	1
Singing is accessible to anyone	1
Thought it would be easy	1
To take advantage of a school opportunity	1
Wanted to join chorus in order to encourage others to do the same	1
Was invited by girls who sing in this choir	1

In Parts One and Two of the *Male Choral Student Survey*, the participants were asked to assess 52 items. Thirty-nine of these items were taken from the pilot study results (refer to Table 1). Many of these 39 items gathered from the pilot study also were confirmed in the related literature; however, 11 new items, which were not identified in the pilot study, were identified from the related literature (see Table 2).

Table 2

Eleven Items Identified from Related Literature but Not from Pilot Study

Item
I enjoy the teamwork atmosphere in chorus
Chorus is different from other school classes
It allows me to express myself emotionally
I like being challenged by the difficult music in chorus
Chorus allows me to demonstrate my talent.
I enjoy the pace of learning in chorus class.
Singing in chorus is a source of pride for me.
I think chorus is a good way to make new friends.
I feel very socially connected to the members of this chorus.
I like the limited amount of written assignments in this course.
Because the chorus teacher knows how to help us through the male vocal change.

After assembling these 50 items, i.e., 39 items from the pilot study plus 11 items from the related literature, the researcher asked five secondary school music education experts to review this list of 50 items for completeness. One of these five secondary

school music education experts recommended the addition of two items to the existing list of 50 items (see Table 3).

Table 3

Two Items Recommended by Secondary School Music Education Expert

Item
I would get honors credit for taking chorus.
Singing in chorus gives me a better chance of being selected to participate in the school musical.

Two of the five experts, while not recommending additional items, recommended wording changes to a few of the existing 50 items to make these items understandable to secondary school students. The remaining two experts had no suggestions for changes, deletions, or additions to the list of 50 items. The five school music education experts who reviewed the 50-item list had a combined 71 years of middle and/or high school choral music teaching experience. In addition to secondary school music education experience, one of the five experts had six additional years of college undergraduate music teaching experience plus five years of college graduate school music teaching experience. Another of the experts had been selected by his school's faculty as the school's teacher of the year, and by a panel of judges as the county's teacher of the year.

Reliability for Parts One and Two of the *Male Choral Student Survey* (MCSS) was determined by using a Cronbach's Alpha measure of internal consistency (Cronbach, 1951) and a standard error of measurement (Hopkins, 1998) for each Part. The present

researcher used IBM's SPSS Statistics version 22 (SPSS) to perform the Cronbach's Alpha calculations and Microsoft Excel 2010 to perform the standard error of measurement calculations.

When considering all 52 items from Part One of the *Male Choral Student Survey*, the internal consistency calculation generated a high coefficient ($\alpha = .921$). The total response score for Part One of the MCSS equaled 260 (i.e., 5 possible points per item * 52 items in Part One), and the standard error of measurement for Part One ($\sigma_e = 8.961$) was less than 5% of the total response score (i.e., 3.45% error). The analyses revealed that Part One of the MCSS measured with a high level of reliability and an acceptable amount of error.

When considering all 52 items from Part Two of the *Male Choral Student Survey*, the internal consistency calculation also generated a high coefficient ($\alpha = .939$). Like Part One of the MCSS, the total response score for Part Two equaled 260 (i.e., 5 possible points per item * 52 items in Part Two), and the standard error of measurement for Part Two ($\sigma_e = 9.293$) was less than 5% of the total response score (i.e., 3.57% error). The analyses revealed that Part Two of the MCSS measured with a high level of reliability and an acceptable amount of error.

Data Collection Procedures

Before recruiting study participants or beginning data collection, the researcher completed and submitted an application for the present study to the University of North Carolina at Greensboro's (UNCG's) Institutional Review Board (IRB). This application was approved (see Appendix B). Because private school choral musicians, rather than

public school choral musicians, were recruited for the study, no school system approval was required. In addition to obtaining IRB approval, the researcher obtained a letter of support and approval from the appropriate administrator(s) at each data collection site (Appendix C). After the letters of support and approval were received from the appropriate school administrator(s) for a given data collection site, the researcher forwarded these letters to UNCG's IRB to receive site-specific data collection approval. After receiving UNCG-IRB approval, the researcher sent a recruitment email to each potential choral director participant (see Appendix D). If a choral director agreed to participate in the present study, the researcher delivered to the consenting choral director a sufficient number of hardcopy male-student-participant recruitment packets.

Two different versions of the male-student-participant recruitment packet were available. One version was addressed to the parents or guardians of male choral students who were 17 years old or younger (i.e., minors). This version of the male student participant recruitment packet included a parental recruitment letter (see Appendix E.1), two copies of the parental consent form (see Appendix E.2), and a reference copy of the minor student assent form (see Appendix E.3). Two copies of the parental consent form were included so parents or guardians were able to sign one form and send it back to their son's choral director, while retaining the other copy of the consent form for their reference. The second version of the male-student-participant recruitment packet was for adult male students. Federal guidelines for research with human participants allow students who are 18 years old or older to consent to participate in a research study without parental/guardian consent. The recruitment packet for adult male students,

therefore, did not include materials specifically for these students' parents, although the students could review the recruitment packet with their parents, if they desired. The adult version of the male-student-participant recruitment packet included a recruitment letter for adult male students (see Appendix F.1) and two copies of the adult student consent form (see Appendix F.2). Adult students received two copies of the consent form so that they were able to sign one copy and return it to their school choral director, and to retain the other copy for their reference.

The recruitment letter in both versions of the male student participant recruitment packet invited the student to participate in this present study. If the parents/guardians of a minor student approved of the student's participation or if an adult student agreed to participate, the student was asked to return the appropriate consent form to the student's school choral director. Because the choral directors also were invited to serve as study participants, the researcher provided a hardcopy consent form to each choral director (see Appendix G). After allowing sufficient time for the signing and returning of consent forms, the researcher collected signed forms from the choral directors.

The researcher and each choral director scheduled a data collection date and time for each chorus. At each scheduled data collection date and time, the researcher visited the school and administered the *Choral Director Survey* (CDS) to each choral director. The researcher also allowed minor male choral students, whose parents or guardians had signed a parental consent form, the opportunity to review, ask any questions about, and sign an assent form for minor students (see Appendix H). After receiving all required consent and assent forms, the researcher distributed the *Male Choral Student Survey*

(MCSS) to male choral students who had returned and/or signed the required consent/assent forms.

While the researcher was administering the MCSS to male student participants, some choral directors chose to have a sectional with choral students who were not participating in the present study. Other choral directors allowed students not participating in the present study to go to study hall, and one choral director gave non-participating students free/social time while the MCSS was administered and completed.

After the choral directors had completed the CDS and the male student participants had completed the MCSS, the researcher collected the completed surveys, and thanked the male student participants, choral director participants, and the school administrator(s) for their assistance.

Data Analysis Procedures

Once the researcher completed the data collection procedure, all data were compiled and analyzed. Research question one was, “What are the number of males, as compared to females, in the middle and high school choruses?” Data used to answer this research question were collected via the *Choral Director Survey* (CDS) and were analyzed using Microsoft’s Excel 2010 software. Data were categorized into three groups: (a) middle school choruses, (b) high school choruses, and (c) secondary school choruses (i.e., a summary group including responses from both middle school choruses and high school choruses). Descriptive statistics were used to analyze the CDS data for each of the three choral groups.

Research question two was, “When chorus participation was optional, why did male middle and high school students *initially* choose to participate in these ensembles?” Data used to answer this research question were collected via Part One of the *Male Choral Student Survey*. The researcher calculated descriptive statistics and employed an exploratory factor analysis statistical procedure to analyze the data. Microsoft’s Excel 2010 software was used to analyze the data via descriptive statistics. IBM’s SPSS Statistics version 22 (SPSS) was used to analyze the data via an exploratory factor analysis statistical procedure.

Research question three was, “When chorus participation was optional, why did male middle and high school students choose to *continue* to participate in these ensembles?” Data used to answer this research question were collected via Parts Two and Three of the *Male Choral Student Survey*. The researcher calculated descriptive statistics and employed both a principal components analysis and a multiple regression statistical procedure to analyze the data. Microsoft Excel 2010 was used to analyze the data via descriptive statistics. IBM’s SPSS Statistics version 22 software was used to analyze the data via both a principal components analysis and a multiple regression statistical procedure.

Multiple regression analysis procedures required a participant-to-independent-variable ratio of at least 10:1 (Howell, 2010). Because the researcher acquired 73 *Male Choral Student Survey* (MCSS) participant responses, there could be a maximum of seven independent variables used in the multiple regression procedure. The male student participants were asked, in Part Two of the MCSS, to assess 52 potentially motivating

items. However, all 52 items could not be used as independent variables in the multiple regression analysis due to the 10:1 participant to independent variable rule. As a result, the researcher employed a principal components analysis (PCA) to reduce the 52 items from the MCSS part two to a maximum of seven principal components. Once the PCA was completed, the identified principal components were used as independent predictor variables in the multiple regression procedure. The dependent variable in the multiple regression procedure was the male student participant's assessment of the degree to which he planned to sing in chorus during the next school term, data collected via Part Three of MCSS. The goal of this multiple regression analysis was to determine which principal component or combination of components, representing the MCSS potentially motivating items, best predicted the male student participants' intentions to sing in the chorus during the following school term.

CHAPTER IV

RESULTS

Review of Research Questions

The researcher included data collected via the student and choral director surveys to answer the following three research questions:

1. What were the numbers of males, as compared to females, in middle and high school choruses in private schools in central North Carolina?
2. When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina *initially* choose to participate in these ensembles?
3. When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina choose to *continue* to participate in these ensembles?

The remainder of this chapter is organized by these three research questions.

Research Question One: Comparison of Number of Male and Female Choral Students

Research question one was: “What were the numbers of males, as compared to females, in middle and high school choruses in private schools in central North Carolina?” Data collected from the *Choral Director Survey* were used to determine the total number of singers in each chorus, and how many of these singers were male and how many were female. Nine different choral directors, representing six different private schools and 11 different choruses, completed the *Choral Director Survey*. Six of these

choruses were open to some combination of sixth-, seventh-, and eighth-grade students. The remaining five choruses were open to ninth- through 12th-grade students. All 11 choruses were optional, or elective, classes; that is, these specific classes were not a requirement of graduation, and the students had at least one other class option, in addition to chorus, from which they could have chosen. For analysis, descriptive statistics were calculated for the number of total students, the number of female students, and the number of male students in three different groups: (a) all middle school choruses, (b) all high school choruses, and (c) all secondary school choruses (a summary group including both all middle school choruses and all high school choruses). These descriptive statistics included the sum of chorus students, the difference in the number of female and male students, and the percentage of total participants who were male.

Middle School Choruses

Six of the 11 choruses involved in this research were open to some combination of sixth-, seventh-, and eighth-grade students. Of these six choruses, five of them were considered middle school choruses by their choral director. The choral director of the remaining chorus described the group as a middle school chorus ensemble due to its small size (i.e., 13 total students). For ease of reference in the remainder of this dissertation, the researcher will refer to all six of these groups as middle school choruses. Sixth-, seventh-, and eighth-grade students were eligible to sing in four of these six middle school choruses. The other two middle school choruses were open only to seventh- and eighth-grade students.

The largest of these middle school choruses had 46 students; the smallest had 13 students. There were a total of 132 female students in the six middle school choruses. The largest number of female students per chorus was 32; the smallest had eight. There were a total of 51 male students in the six middle school choruses. The largest number of male students per chorus was 16; the smallest number of male students per chorus was four.

There was a combined total of 81 more female students than male students in these six middle school choruses, with each of these choruses having more female students than male students. The largest difference between the number of female and male students in a chorus was 25; the smallest was three. The middle school chorus with the highest percentage of male students to total students contained approximately 38% males. The middle school chorus with the smallest percentage of male students to total students contained approximately 14% males. On average, males comprised approximately 28% of the total of middle school chorus students (see Table 4).

Table 4

Middle School Choruses: Student Descriptive Statistics

Chorus Identifier ^a	Total Students	Total Female Students	Total Male Students	Number of Female Minus Number of Male Students	Percentage Male
MS-1	46	30	16	14	35
MS-2	28	19	9	10	32
MS-3	39	32	7	25	18
MS-4	13	8	5	3	38
MS-5	29	19	10	9	34
MS-6	28	24	4	20	14
Sum	183	132	51	81	28

^aMS is an abbreviation for middle school; each number following the MS abbreviation is a researcher-assigned identifier representing the school.

High School Choruses

Five of the 11 choruses involved in this research were open to ninth-, 10th-, 11th- and 12th-grade students. All five of these choruses were considered high school choruses by their choral director.

The two largest of these high school choruses each had 39 students enrolled; the two smallest high school choruses each had 25 students enrolled. There was a total of 108 female students in the five high school choruses. The two choruses with the largest number of female students per chorus each had 26 females enrolled; the smallest had 15 females enrolled. There was a total of 58 male students in the five high school choruses. The largest number of male students per chorus was 15; the smallest was eight.

There was a combined total of 50 more female students than male students in these five high school choruses with each of the choruses having more female students than male students. The largest difference between the number of female and male students in a high school chorus was 14; the smallest was five. The high school chorus with the highest percentage of male students to total students contained 40% males. The high school chorus with the smallest percentage of male students to total students contained approximately 31% males. On average, males comprised approximately 35% of the total of high school chorus students. The number of students in each chorus and their associated descriptive statistics are summarized in Table 5.

Table 5

High School Choruses: Student Descriptive Statistics

Chorus Identifier ^a	Total Students	Female Students	Male Students	Number of Female Minus Number of Male Students	Percentage Male
HS-1	39	26	13	13	33%
HS-2	38	26	12	14	31%
HS-3	39	24	15	9	38%
HS-5	25	17	8	9	32%
HS-6	25	15	10	5	40%
Sum	166	108	58	50	35%

^aHS is an abbreviation for high school; each number following the HS abbreviation is a researcher-assigned identifier representing the school.

Total Secondary School Choruses

When considering secondary school choruses in total, including both middle school choruses and high school choruses, there were 11 total choruses. The largest of these choruses had 46 students; the smallest chorus had 13 students. There was a total of 240 female students. The secondary school choruses with the largest number of female students per chorus had 32 females; the smallest had 8 females. There was a total of 109 male students in the secondary school choruses. The largest number of male students per chorus was 16; the smallest was four.

There was a combined total of 131 more female students than male students in these 11 secondary school choruses with each of the choruses having more female students than male students. The largest difference between the number of female and

male students in a secondary school chorus was 25; the smallest was three. The secondary school chorus with the highest percentage of male students to total students contained 40% males. The secondary school chorus with the smallest percentage of male students to total students contained approximately 14% males. On average, males comprised approximately 31% of the total of secondary school chorus students. The number of students in each chorus and their associated descriptive statistics are summarized in Table 6.

Table 6

Total Secondary School Chorus: Student Descriptive Statistics

Chorus Identifier ^a	Total Students	Total Female Students	Total Male Students	Number of Female Minus Number of Male Students	Percentage Male
MS-1	46	30	16	14	35%
HS-1	39	26	13	13	33%
MS-2	28	19	9	10	32%
HS-2	38	26	12	14	32%
MS-3	39	32	7	25	18%
HS-3	39	24	15	9	38%
MS-4	13	8	5	3	38%
MS-5	29	19	10	9	34%
HS-5	25	17	8	9	32%
MS-6	28	24	4	20	14%
HS-6	25	15	10	5	40%
Sum	349	240	109	131	31%

^aMS is an abbreviation for middle school and HS is an abbreviation for high school; each number following the MS or HS abbreviation is a researcher-assigned identifier representing the school. Thus, the identifiers MS-1 and HS-1 represent the middle school chorus and high school choruses from the same school.

Research Question Two: Male Initial Participation in Chorus

Research question two was: “When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina *initially* choose to participate in these ensembles?” Data from Part One of the *Male Choral Student Survey* (MCSS) was used to answer this research question.

Part One of the *Male Choral Student Survey* Descriptive Statistics

For statistical analyses of data from Part One of the MCSS, the researcher converted participants’ item responses from Likert-type alphabetic descriptors to numerical values. The response “very important” was converted to a value of 5, “important” to a value of 4, “undecided” to a value of 3, “not very important” to a value of 2, and “not important at all” to a value of 1. Using these numerical values, each item’s rank, mean, standard deviation, and range were calculated using Microsoft Excel 2010.

The highest item mean response, or arithmetic average response, in Part One was 4.30 for the item “I enjoy music.” This high mean response revealed that many male student participants were strongly motivated to initially join chorus because they enjoyed music. The lowest item mean response in Part One was 1.96 for the item “I was invited by girls who sing in this chorus.” This low mean revealed that, for many male student participants, this item was not a strong motivator for initially joining the chorus.

Results of analyzing all item responses within Part One of the *Male Choral Student Survey* via descriptive statistics (i.e., mean and standard deviation) are included in Table 7. These results were used to determine if items were or were not strong

motivators for the male student participation in choral ensembles, and to determine if individual participant responses clustered around the means. Additionally, the range of responses to each item in Part One was 4, which meant that for every item there was at least one participant who answered 5, “very important,” and at least one participant who answered 1, “not important at all.”

Table 7

Part One of the *Male Choral Student Survey*: Item Descriptions and Descriptive Statistics, Sorted by Mean

Item Ranked by Mean	Item Description	Item Mean ^a	Item Standard Deviation ^a
1	I enjoy music	4.30	0.97
2	I thought it would be fun	4.08	0.95
3	I like to sing	4.00	1.24
4	I like to go on trips away from school	3.99	1.17
5	I enjoy being a part of the group	3.96	1.28
6	I have friends who sing in this chorus	3.60	1.23
7	I wanted to improve my singing ability	3.56	1.50
8	Chorus is different from other school classes	3.53	1.25
9	It's relaxing	3.51	1.30
10	I like the limited amount of written assignments in this course	3.45	1.57
11	I sing well	3.42	1.37
12	I wanted to improve my musical knowledge	3.36	1.42
13	Chorus is an active class--not one where you just sit still	3.33	1.30
14	I wanted to take advantage of this school opportunity	3.29	1.33
15	I think chorus is a good way to make new friends	3.28	1.44
16.5	It was the best alternative of my available options	3.26	1.43
16.5	I enjoy the pace of learning in chorus class	3.26	1.26
18	I enjoy the teamwork atmosphere in chorus	3.23	1.16
19	Chorus allows me to demonstrate my talent	3.22	1.40
20.5	I always wanted to sing in a chorus	3.18	1.41
20.5	I feel very socially connected to the members of this chorus	3.18	1.29
22	I wanted to encourage others to sing in chorus too	3.13	1.53
23	Of the light workload in this class	3.12	1.50

Table 7

(Cont.)

Item Ranked by Mean	Item Description	Item Mean ^a	Item Standard Deviation ^a
24	I thought it would be an easy course	3.08	1.37
25	I like being challenged by the difficult music in chorus	3.05	1.48
26	Of the positive reputation of this chorus	3.04	1.42
27.5	I like to perform for others	3.01	1.26
27.5	Because the chorus teacher knows how to help us through the male vocal change	3.01	1.48
30	Of the influence of the chorus teacher	2.97	1.41
30	Participation in chorus helps in other academic areas	2.97	1.40
30	It allows me to occasionally skip other classes	2.97	1.53
32	I thought it would enhance my college application	2.95	1.58
33	I like the songs this chorus sings	2.90	1.37
34.5	I didn't have to meet any skill level requirement to sing in this chorus	2.82	1.49
34.5	Of my previous experience in another chorus	2.82	1.54
36	Singing in chorus is a source of pride for me	2.78	1.40
37	Anyone can sing	2.76	1.43
38	There are a lot of girls in chorus	2.74	1.46
39	Of my family's influence	2.70	1.39
40	Of the presence of other guys in this chorus	2.67	1.31
41	Chorus was recommended by someone other than family members and school teachers	2.64	1.53
42	Of a religious calling	2.63	1.42
43	I would get honors credit for taking chorus	2.56	1.54
44	It allows me to express myself emotionally	2.52	1.39
45	Guys who can sing are attractive to girls	2.48	1.56
46	Of the influence of a teacher, other than the chorus teacher	2.42	1.34
47	I became aware that males could join chorus	2.26	1.38
48	I liked the chorus' performance attire	2.23	1.32
49	Singing in chorus gives me a better chance of being selected to participate in the school musical	2.04	1.34
50	Cool guys were singing in this chorus	2.03	1.14
51	Chorus students get free food	2.01	1.44
52	I was invited by girls who sing in this chorus	1.96	1.17

^a Rounded to two decimal places

Factors for Initial Participation

To determine if a small number of discrete primary factors, or underlying common themes, contributed to the middle and high school males' responses to Part One of the *Male Choral Student Survey* (MCSS), the researcher used IBM's SPSS software to calculate a factor analysis statistical procedure. Factor analysis is typically used to reduce a large number of items down to a smaller representative list of categories, or primary factors. By reducing the 52 items in Part One of the MCSS, the present researcher attempted to identify a few primary factors that choral directors may use in the future to recruit males to join the chorus, or choruses, the directors lead. Because a few student participants had failed to provide a response for every item in Part One of the MCSS, the researcher, when calculating the factor analysis, chose the SPSS missing values setting "replace with mean" to compensate for the missing values. As a result, when calculating the factor analysis procedure, the item mean of the other student participant responses was substituted for any student participant's missing value in Part One of the MCSS. When examining the results of the factor analysis, both the Kaiser-Meyer-Olkin Measure of Sampling Adequacy ($KMO = .854$) and Bartlett's Test of Sphericity ($p = .000$) provided evidence to support factor analysis as an appropriate statistical procedure to identify primary factors for these data from Part One of the MCSS (Field, 2013; Kaiser, 1974; Lund & Lund, 2013).

After confirming the appropriateness of using the factor analysis statistical procedure, the researcher determined the number of items to use in the procedure. Asmus (1989) suggested an appropriate participant-to-item ratio for factor analysis of 3:1.

Because the present study included 73 male student participants, the appropriate number of items to use in the factor analysis was 24 items. Because research question two addressed what factors or reasons *initially* motivated male students to choose to sing in their school choruses, the researcher choose to use the 24 items that the male student participants had designated as their strongest motivators, as measured by the items' mean scores. Additionally, the researcher selected a rotation method for the factor analysis. Fabrigar, Wegener, MacCallum, and Strahan (1999) concluded that "oblique rotations provide a more accurate and realistic representation [than do orthogonal rotations] of how constructs are likely to be related to one another" (p. 282). Therefore, a direct oblimin rotation ($\delta = 0$), an oblique rotation method, was used to explain the data.

After calculating the factor analysis of the data from Part One of the MCSS, there were initially six possible primary factors with eigenvalues above one. Primary factors Four, Five, & Six, however, only explained a low percentage of the variance in the responses, that is, each of these factors explained approximately 4%-5%. The researcher, therefore, focused on the three primary factors that explained the largest percentage of variance within participants' reasons for participating in chorus.

When focusing on the three primary factors accounting for the largest amount of variance, items "I thought it would be fun" and "I have friends who sing in this chorus" were removed from the factor analysis due to low communality values ($< .300$) (Teachout, 2004).

After removing these items, the researcher examined the factor structure matrix (see Table 8). Pett, Lackey, and Sullivan (2003) determined that when using an oblique

rotation method, “the factor structure matrix should be the focus of factor identification and interpretation” (p. 152).

Table 8

Factor Structure Matrix: Three Primary Factors

Item Description	Primary Factor One	Primary Factor Two	Primary Factor Three
I enjoy the pace of learning in chorus class	.848	.079	.044
I wanted to improve my singing ability	.846	-.020	.396
I wanted to encourage others to sing in chorus too	.829	-.040	-.014
I always wanted to sing in a chorus	.750	-.126	.507
I enjoy being a part of the group	.736	-.046	.028
I like to sing	.735	-.015	.439
I think chorus is a good way to make new friends	.724	.174	-.004
I enjoy music	.719	-.212	.118
I wanted to take advantage of this school opportunity	.716	.013	.209
I feel very socially connected to the members of this chorus	.714	.095	-.250
Chorus is an active class--not one where you just sit still	.701	.183	.057
I enjoy the teamwork atmosphere in chorus	.694	.182	-.035
I wanted to improve my musical knowledge	.648	-.143	.569
I sing well	.615	.190	.374
Chorus is different from other school classes.	.588	.367	.187
Of the light workload in this class	.053	.828	-.135
I like the limited amount of written assignments in this course	-.018	.729	-.103
I thought it would be an easy course	-.129	.724	-.031
It's relaxing	.461	.530	.165
I like to go on trips away from school	.218	.181	-.638
Chorus allows me to demonstrate my talent	.546	.056	.605
It was the best alternative of my available options	.214	.469	.520

Based on this matrix, the researcher concluded that when all three highest factors were considered, none of the three highest primary factors were discrete. For example, the items “I always wanted to sing in a chorus,” “I wanted to improve my musical knowledge,” and “chorus allows me to demonstrate my talent” seemed to load strongly on both primary Factor One and primary Factor Three. The item “it’s relaxing” seemed to load strongly on both primary Factor One and primary Factor Two, and finally, the item “it was the best alternative of my available options” seemed to load strongly on both primary Factors Two and Three. Consequently, a three factor solution did not seem to provide a satisfactory level of uniqueness among the factors. A two factor solution, therefore, was investigated. Because Factors One and Two were stronger than the third, the focus shifted to the two highest factors. When examining only the two highest primary factors, the items “chorus is different from other school classes,” “it’s relaxing,” and “I like to go on trips away from school” all loaded in similar ways to both factors and did not provide support to the discrete nature of either Factor One or Factor Two. These items, therefore, were removed from the analysis. The remaining 19 items provided clear evidence for two discrete primary factors (see Table 9).

With two discrete primary factors identified, the next step in this analysis was to determine what the items in each primary factor had in common. When analyzing the 15 items that discretely correlated with primary Factor One (out of the original 24 items that were used in the factor analysis), the researcher noticed that each of these items were related to an interest in and enjoyment of music and chorus (see Table 10).

Table 9

Factor Structure Matrix: Two Primary Factors

Item Description	Primary Factor One	Primary Factor Two
I wanted to improve my singing ability	.874	-.061
I enjoy the pace of learning in chorus class	.826	.065
I always wanted to sing in a chorus	.803	-.158
I wanted to encourage others to sing in chorus too	.801	-.055
I like to sing	.785	-.021
I wanted to take advantage of this school opportunity	.724	-.011
I enjoy being a part of the group	.722	-.040
I enjoy music	.718	-.227
I wanted to improve my musical knowledge	.706	-.189
I think chorus is a good way to make new friends	.702	.181
Chorus is an active class--not one where you just sit still	.685	.166
I enjoy the teamwork atmosphere in chorus	.666	.193
I feel very socially connected to the members of this chorus	.664	.132
I sing well	.642	.143
Chorus allows me to demonstrate my talent	.609	-.008
Of the light workload in this class	.019	.849
I thought it would be an easy course	-.141	.743
I like the limited amount of written assignments in this course	-.048	.726
It was the best alternative of my available options	.270	.462

Table 10

Items Related to Factor One: An Interest in and Enjoyment of Music and Chorus

Item Description
I wanted to improve my singing ability
I enjoy the pace of learning in chorus class
I always wanted to sing in a chorus
I wanted to encourage others to sing in chorus too
I like to sing
I wanted to take advantage of this school opportunity
I enjoy music
I enjoy being a part of the group
I wanted to improve my musical knowledge
I think chorus is a good way to make new friends
Chorus is an active class--not one where you just sit still
I enjoy the teamwork atmosphere in chorus
I feel very socially connected to the members of this chorus
I sing well
Chorus allows me to demonstrate my talent

When analyzing each of the four items that discretely correlated with primary Factor Two, the researcher noticed that they were related, not to an interest in music or chorus per se, but to an interest in a class that was less difficult and time consuming than other available class options (see Table 11).

Table 11

Items Related to Factor Two: An Interest in a Less Difficult and Time Consuming Class than Other Available Class Options

Item Description
Of the light workload in this class
I thought it would be an easy course
I like the limited amount of written assignments in this course
It was the best alternative of my available options

Primary Factor One, an interest in and enjoyment of music and chorus, explained approximately 43% of the total variance in male student participant responses, and the primary Factor Two, an interest in a class that was less difficult and time consuming than the other available class options, explained approximately 12% of the variance. When summed, these two primary factors (i.e., an interest in and enjoyment of music and chorus, and an interest in a class that was less difficult and time consuming than the other available class options) accounted for approximately 55% of the total variance in the participants' reasons for participating in chorus (i.e., responses to Part One of the *Male Choral Student Survey* (see Table 12).

Table 12

Total Variance Explained: Two Primary Factors

Primary Factor Number and Name	Eigenvalues	Percentage of Variance	Cumulative Percentage
One: An Interest in and Enjoyment of Music and Chorus	8.136	42.821	42.821
Two: An Interest in a Less Difficult and Time Consuming Class than Other Available Class Options	2.274	11.969	54.790

Research Question Three: Male Continued Participation in Chorus

Research question three was: “When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina choose to *continue* to participate in these ensembles?” Data from Parts Two and Three of the *Male Choral Student Survey* (MCSS) was used to answer this research question.

Part Two of the *Male Choral Student Survey* Descriptive Statistics

For statistical analysis of the data from Part Two of the *Male Choral Student Survey*, the researcher converted participants’ item responses from the Likert-type alphabetic descriptors to numerical values. The response “very important” was converted to a value of 5, “important” to a value of 4, “undecided” to a value of 3, “not very important” to a value of 2, and “not important at all” to a value of 1. Using these numerical values, each item’s rank, mean, standard deviation, and range were calculated using Microsoft Excel 2010.

The highest item response mean, or arithmetic average response, in Part Two of the *Male Choral Student Survey* was 4.19 for the item “I enjoy music.” This high mean response revealed that many male student participants were motivated to continue to sing in chorus because they enjoyed music. The lowest item mean response in Part Two was 2.26 for the item “Singing in chorus gives me a better chance of being selected to participate in the school musical.” This low mean revealed that, for many male student participants, this item was not a motivator for continuing to sing in chorus.

Results of analyzing all item responses within Part Two of the *Male Choral Student Survey* via descriptive statistics (i.e., mean and standard deviation) are included in Table 13. These results were used to determine if items were or were not strong motivators for the male student participation in choral ensembles, and to determine if individual participant responses clustered around the means. Additionally, the range of responses to each item in Part Two was 4, which meant that for every item there was at least one participant who answered 5, “very important,” and at least one participant who answered 1, “not important at all.”

Table 13

Part Two of the *Male Choral Student Survey*: Item Descriptions and Descriptive Statistics, Sorted by Mean

Item Ranked by Mean	Item Description	Item Mean ^a	Item Standard Deviation ^a
1	I enjoy music	4.19	1.27
2	I like to go on trips away from school	4.12	1.12
3	It is fun	4.07	1.29
4	I like to sing	3.99	1.30
5	I enjoy being a part of the group	3.67	1.43
6.5	I think chorus is a good way to make new friends	3.66	1.44
6.5	I want to improve my singing ability	3.66	1.46
8	I have friends who sing in this chorus	3.63	1.36
9	Chorus is different from other school classes	3.59	1.39
10	It's relaxing	3.52	1.40
11	I sing well	3.49	1.37
12	I like the limited amount of written assignments in this course	3.48	1.52
14	It is the best alternative of my available options	3.45	1.59
14	Chorus is an active class—not one where you just sit still	3.45	1.36
14	I want to take advantage of this school opportunity	3.45	1.40
16	I want to improve my musical knowledge	3.44	1.55
17	I enjoy the teamwork atmosphere we have in chorus	3.40	1.42
18	Of the positive reputation of this chorus	3.38	1.51

Table 13

(Cont.)

Item Ranked by Mean	Item Description	Item Mean ^a	Item Standard Deviation ^a
19	I enjoy the pace of learning in chorus class	3.37	1.36
20	I want to encourage others to sing in chorus too	3.36	1.48
21.5	Chorus allows me to demonstrate my talent	3.34	1.46
21.5	It allows me to occasionally skip other classes	3.34	1.55
23	I like being challenged by the difficult music in chorus	3.32	1.50
24	Of the influence of the chorus teacher	3.29	1.60
25	It will be an easy course	3.26	1.53
26	Of the light workload in this class	3.25	1.60
27	I feel very socially connected to the members of this chorus	3.19	1.42
28.5	I have always wanted to sing in a chorus	3.18	1.48
28.5	I like the songs this chorus sings	3.18	1.55
30	I like to perform for others	3.12	1.55
31.5	Participation in chorus helps in other academic areas	3.11	1.45
31.5	I think it will enhance my college application	3.11	1.41
33	Because the chorus teacher knows how to help us through the male vocal change	3.05	1.51
34	Of my previous experience in another chorus	3.00	1.54
35	I get honors credit for taking chorus	2.93	1.54
36	Males are allowed to sing in chorus	2.89	1.61
37.5	Of my family's influence	2.88	1.54
37.5	Singing in chorus is a source of pride for me	2.88	1.45
40	Of the influence of a teacher, other than the chorus teacher	2.79	1.51
40	Of the presence of other guys in this chorus	2.79	1.48
40	Chorus participation is encouraged by someone other than family members and school teachers	2.79	1.48
42	Anyone can sing	2.77	1.59
43	It allows me to express myself emotionally	2.74	1.47
44	Of a religious calling	2.67	1.50
45.5	I don't have to meet any skill level requirement to sing in this chorus	2.66	1.50
45.5	There are a lot of girls in chorus	2.66	1.46
47	I like the chorus' performance attire	2.59	1.54
48	Guys who can sing are attractive to girls	2.37	1.51
49	Cool guys sing in this chorus	2.32	1.29
50.5	Chorus students get free food	2.27	1.54
50.5	I was invited to continue to sing by girls who sing in this chorus	2.27	1.45
52	Singing in chorus gives me a better chance of being selected to participate in the school musical	2.26	1.46

^aRounded to two decimal places

Predicting Continued Chorus Participation

Principal components analysis. To further answer research question three, the researcher attempted to use a form of predictive research entitled ordinal regression. Ordinal regression was appropriate for the data from Parts Two and Three of the *Male Choral Student Survey* because the survey responses were rated on a Likert-type scale. The use of a Likert-type scale produced ordinal data (Göb, McCollin, & Ramalhoto, 2007). Peduzzi, Concato, Kemper, Holford, and Feinstein (1996) found that a minimum of 10 participants were needed for each independent variable used in a logistic regression analysis. Because ordinal regression is a type of logistic regression, the present researcher needed to reduce the number of items, or independent variables in the ordinal regression procedure, from 52 items to seven principal components, (i.e., 73 participants/10 participants needed per variable). Principal components analysis (PCA) was used to reduce the number of items from 52 to the seven principal components that best represented the spectrum of the original group of items while still accounting for as much of the original data variance as possible. The researcher used IBM's SPSS software to calculate the PCA. Because a few male student participants had failed to provide a response for every item in Part Two of the MCSS, the researcher, when calculating the PCA, chose the SPSS missing values setting "replace with mean" to compensate for the missing values. As a result, when calculating the principal component analysis procedure, the item mean of the other male student participant responses was substituted for any male student participant's missing value in Part Two of the MCSS. When analyzing the results, the researcher first verified that all variables were

correlated with at least one other variable by more than a correlation coefficient of .30 to justify their inclusion in the PCA (Lund & Lund, 2013). Each variable met this criterion.

The Kaiser-Meyer-Olkin (KMO) Measure was used to determine if the relationships among the 52 variables (i.e., items) were linear. Linear relationships are an assumption of principal component analysis. The overall KMO of Sampling Adequacy was .661. Any KMO measure between and including .60 and .69 is considered to be 'mediocre' on Kaiser's (1974) classification of measure values. To improve the KMO score and ensure the data were appropriate for the PCA procedure, the researcher removed 11 variables (i.e., items) whose individual KMO scores were $< .500$ (Lund & Lund, 2013). The variables removed are listed in Table 14.

Table 14

Variables Removed from PCA Due to Low Individual KMO Scores

Item Description
Of my family's influence
Of the influence of a teacher, other than the chorus teacher
Cool guys sing in this chorus
Guys who can sing are attractive to girls
Of the presence of other guys in this chorus
Chorus students get free food
It will be an easy course
I have friends who sing in this chorus
There are a lot of girls in chorus
It allows me to occasionally skip other classes
I like to go on trips away from school

After removing these 11 variables, the principal component analysis was recalculated. The new overall KMO score was .792. According to Kaiser's (1974) classification of measure values any KMO score between and including .70 and .79 is considered 'middling.' However, this score was only .008 away from being considered 'meritorious.' Following the establishment of an acceptable KMO score, the researcher determined the probability generated by Bartlett's Test of Sphericity, and the results indicated significance ($p < .000$). With a KMO score of .792 and significance results from Bartlett's test ($p < .000$), the data were considered to be suitable for a principal components analysis (Lund & Lund, 2013).

To complete the principal component analysis of the data, the researcher needed to determine the rotations to be used. Fabrigar et al. (1999) concluded that "oblique rotations provide a more accurate and realistic representation [than do orthogonal rotations] of how constructs are likely to be related to one another" (p. 282). Therefore, a direct oblimin rotation ($\delta = 0$), an oblique rotation method, was used to explain the data. A scree plot is a plot of eigenvalues and the identified components; eigenvalues represent the total variance explained per component (Lund & Lund, 2013). According to the scree plot of the data from Part Two of the MCSS (see Figure 1), six to seven components would retain the majority of the original 41 variables (i.e., 52 variables minus 11 variables) of Part Two of the MCSS that contributed to the variance. The first seven components represented 65.40% of the total variance.

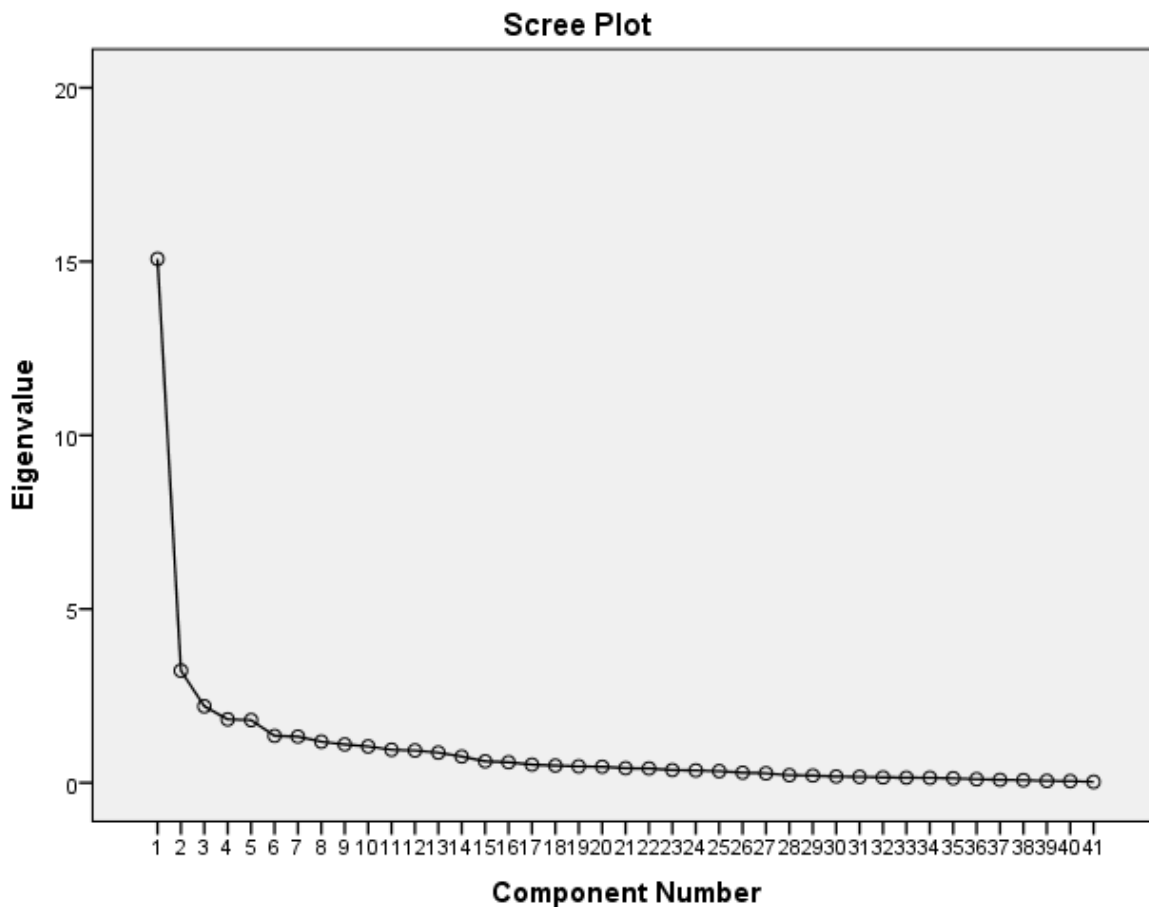


Figure 1. Principal Component Analysis Scree Plot.

Given the number of male student participants ($n = 73$) and the 10:1 ratio of participants to ordinal regression independent variables, seven components also would not overreach the limits of an ordinal regression procedure. In addition, each of the first seven components could be grouped logically. The researched labeled the seven components with the following descriptors: (a) social, (b) easy course, (c) external benefits, (d) invited, (e) singing, (f) self-improvement, and (g) unique class. For a list of the seven components and each component's associated variables (i.e., items), see Table

15. In addition to reducing the 52 variables (i.e., items) to principal components, the PCA also calculated a weighted mean per participant for each of the identified components. The researcher used these weighted means for the seven identified components as input for the next procedure, ordinal regression.

Table 15

Loadings and Variance Contributions for Seven Components

Component Name/Items	Component Number						
	1	2	3	4	5	6	7
1. Social							
I enjoy the teamwork atmosphere we have in chorus	.768	.101	-.055	.087	-.008	.151	.102
I feel very socially connected to the members of this chorus	.730	-.183	.294	.147	.027	-.215	.115
I think chorus is a good way to make new friends	.666	.019	-.074	.287	.097	-.007	.127
I enjoy the pace of learning in chorus class	.581	.232	-.155	-.036	.211	.214	.105
I enjoy being part of the group	.567	.002	.244	-.193	.140	-.002	.233
Of the positive reputation of this chorus	.545	.316	-.057	.135	.053	.305	-.048
I want to encourage others to sing in chorus too	.523	-.145	.196	.044	.236	-.091	.284
I like the songs this chorus sings	.520	-.056	-.089	.006	.149	.233	-.043
Chorus is an active class—not one where you just sit still	.475	.219	.108	-.110	-.132	.218	.319
It is fun	.436	.053	.160	-.106	.155	.316	.206
I like the chorus' performance attire	.348	.137	.344	-.015	.196	-.102	-.115
Variance contributed by component 1 = 36.770%							

Table 15

(Cont.)

Component Name/Items	Component Number						
	1	2	3	4	5	6	7
2. Easy Course							
I like the limited amount of written assignments in this course	.096	.888	-.026	-.018	-.025	.093	-.012
Of the light workload in this class	-.048	.834	.151	.085	-.134	-.001	.139
I don't have to meet any skill level requirement to sing in this chorus	-.201	.620	.009	-.035	.263	-.331	.237
It's relaxing	.435	.482	.157	-.062	-.066	.314	.015
Variance contributed by component 2 = 7.870%							
3. External Benefits							
I think it will enhance my college application	-.042	.269	.710	.151	-.195	.086	-.030
I get honors credit for taking chorus	-.098	.046	.661	.135	.019	.065	-.032
I like to sing	.087	-.081	.578	-.246	.233	.125	.207
Chorus allows me to demonstrate my talent	.212	.088	.486	-.115	.319	.052	.104
I sing well	.350	-.078	.477	-.093	-.152	-.029	.314
Singing in chorus is a source of pride for me	.123	.163	.450	.018	.315	-.122	.168
I want to take advantage of this school opportunity	.094	.062	.445	.138	.275	.172	.175
I enjoy music	.292	-.022	.325	-.279	.141	.283	.170
Variance contributed by component 3 = 5.368%							
4. Invited							
I was invited to continue to sing by girls who sing in this chorus	.158	-.090	.027	.771	-.094	.070	.078
Chorus participation is encouraged by someone other than family members and school teachers	.017	.152	.322	.582	.006	.006	.065

Variance contributed by component 4 = 4.451%

Table 15

(Cont.)

Component Name/Items	Component Number						
	1	2	3	4	5	6	7
5. Singing							
Because the chorus teacher knows how to help us through the male vocal change	.249	.137	-.176	.030	.769	-.152	-.008
I want to improve my singing ability	.183	-.095	.291	-.228	.555	.238	.019
I like to perform for others	.155	-.128	.268	-.082	.554	.123	.016
I have always wanted to sing in a chorus	.229	-.014	.172	-.156	.533	.241	.037
It allows me to express myself emotionally	-.172	-.050	.180	.102	.521	.345	.198
Singing in chorus gives me a better chance of being selected to participate in the school musical	-.037	.094	-.224	.281	.473	.096	.283
Males are allowed to sing in chorus	.317	.386	.236	.104	.405	-.330	-.068
Of a religious calling	-.191	-.050	.277	.239	.372	.304	-.125
Variance contributed by Component 5 = 4.401%							
6. Self-Improvement							
I like being challenged by the difficult music in chorus	.257	-.062	.060	.062	.164	.630	.106
Participation in chorus helps in other academic areas	.142	.322	.171	.262	.025	.555	-.146
I want to improve my musical knowledge	-.010	-.111	.076	-.206	.453	.474	.195
Of my previous experience in another chorus	.293	-.074	.102	.051	-.039	.381	.369
Variance contributed by component 6 = 3.297%							

Table 15

(Cont.)

Component Name/Items	Component Number						
	1	2	3	4	5	6	7
7. Unique Class							
Chorus is different from other school classes	.080	.005	.045	.021	-.063	.022	.725
Anyone can sing	.126	.068	-.158	.111	.093	-.052	.705
It is the best alternative of my available options	-.219	.411	.140	-.127	-.059	.070	.701
Of the influence of the chorus teacher	.036	-.017	-.056	.484	.197	-.091	.507
Variance contributed by component 7 = 3.240%							
Total variance contributed by 7 components = 65.369%							

Ordinal regression. When the ordinal regression statistical procedure was calculated, the researcher used the seven components identified via the principal component analysis and their associated weighted means for each participant as input values for the ordinal regression procedure. Two assumptions that need to be met to use an ordinal regression procedure were a test for multicollinearity and a test of proportional odds. The researcher examined the ordinal regression tolerance and VIF collinearity statistics. All tolerance coefficients were $\geq .1$ and every VIF value < 10 . The results, therefore, indicated the multicollinearity assumption was met (Lund & Lund, 2013). Using the test of parallel lines, the ordinal regression results showed, however, that the assumption of proportional odds was violated. Thus, this ordinal regression model was not an appropriate statistical procedure for the data.

Multiple regression. Because ordinal regression was not a good fit for the data, the researcher decided to use a multiple regression procedure. The goal of the multiple regression was to use the seven components (i.e., social, easy course, external benefits, invited, singing, self-improvement, and unique class) to predict the degree to which male choral students planned to sing in chorus again during the next school term. Because one male choral student participant did not respond to Part Three of the MCSS, there was a missing value in this male student participant data record. When calculating the multiple regression, the researcher chose the SPSS missing values setting “replace with mean.” As a result when calculating the multiple regression procedure, the mean value of the other 72 male student participants’ response to Part Three of the MCSS was substituted for this one male student participant’s missing value in Part Three of the MCSS.

When calculating a multiple regression analysis, like principal components analysis and ordinal regression, there are several assumptions that need to be met for the procedure to be appropriate relative to the data that were gathered. One of the assumptions is that there is independence of errors, or independence of residuals. While there was no reason to assume that the data records were related, as would be the case in a test-retest methodology, the researcher reviewed the multiple regression Durbin-Watson statistic that typically results in a score ranging from 0.0 to 4.0 (Field, 2013). Results of the Durbin-Watson analysis derived a value of 1.885 that was close to 2.0 indicating that there was independence of errors (Lund & Lund, 2013).

Another assumption that must be met in multiple regression analysis is the variables, both collectively and individually, are linear to the dependent variable. A

scatter plot of the studentized residuals and the unstandardized predicted values indicated that the seven independent variables collectively were linear to the dependent variable. Scatter plots of each independent variable with the dependent variable indicated that individual linearity also existed.

A third assumption that must be met when performing multiple regression analysis is the assumption of homogeneity. A scatter plot was performed on the data and showed that the studentized residuals were spread equally over the predicted values of the dependent variable, so the assumption of homogeneity was not violated.

For multiple regression to be a good fit for the data, there also should be no multicollinearity issues. Multicollinearity exists when at least two independent predictor variables are correlated highly with one another (Lund & Lund, 2013). First, the researcher inspected the correlation coefficients of the seven independent variables with the dependent variable. None of the correlations were greater than 0.70 (Lund & Lund, 2013). Next, the VIF collinearity statistics (i.e., this statistic equals 1.0 divided by Tolerance) were reviewed and none of the VIF values were greater than 10 (Lund & Lund, 2013). The results of both these tests revealed that there were no multicollinearity issues within the data.

Another assumption of multiple regression that must be met is that there are no outliers beyond plus or minus three standard deviations (Lund & Lund, 2013). Analysis of the data revealed no outliers beyond the threshold of +/- 3 standard deviations from the mean. Additionally, there should be no high leverage points if multiple regression is to be an appropriate procedure for the data analysis. The results showed there were no

leverage values above .5. If the leverage values had been above .5, the leverage point would be considered dangerously high. There were seven values between .2 and .3 and one between .4 and .5. These eight values between .2 and .5, out of 73 participants' responses used in the multiple regression. Although these eight values were considered risky, they were not considered dangerously high (Lund & Lund, 2013). Therefore, multiple regression continued to appear to be an appropriate procedure for these data.

A review of Cook's Distance values revealed no values above 1, signifying that there were no influential points that needed to be removed (Cook & Weisberg, 1982). Finally, both a histogram of standardized residuals and a P-P plot indicated that the data approximated a normal distribution.

After satisfying all the requirements of fit for multiple regression, the researcher analyzed the predictive power of the seven components, which were the seven independent variables in the multiple regression procedure. The multiple correlation coefficient represents the correlation of predicted scores with real scores of the dependent variable (Field, 2013). This correlation (R) equaled .701, R square (R^2) equaled .491, and $adj. R^2$ equaled .436. The adjusted R Square ($adj. R^2$) value expresses the proportion of variance in the dependent variable (i.e., the student participants' intent to sing in chorus next term) that can be explained by the independent variables (i.e., the seven principal components) (see Table 16) (Lund & Lund, 2013). The multiple regression results show, therefore, seven dependent variables combined explain 43.6% of the variability of the dependent variable. An analysis of variance (ANOVA) showed this regression model is a good fit for the data ($F(7,65) = 8.954, p < .000$) (see Table 17). In other words, this

model of seven components (i.e., social, easy course, external benefits, invited, singing, self-improvement, and unique class) was a statistically significant predictor of the students' intention to continue chorus participation during the next school term. The multiple regression equation was: students' intent = 4.056 + (.418 * social) – (.063 * easy course) + (.170 * external benefits) – (.194 * invited) + (.111 * singing) + (.163 * self-improvement) + (.303 * unique class). In addition, the variable coefficients of two of the seven components were found to be significantly different than zero: social ($p < .000$) and unique class ($p < .007$). See Table 18.

Table 16

Multiple Regression Summary

Multiple Correlation Coefficient (R)	R Square (R^2)	Adjusted R Square ($adj. R^2$)	Standard Error of the Estimate
.701	.491	.436	.83855

Table 17

Multiple Regression Analysis of Variance

Effect	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square	F -ratio	Significance (p)
Regression	44.072	7	6.296	8.954	.000
Residual	45.706	65	.703		
Total	89.779	72			

Table 18
Multiple Regression Weights

Independent Variable (Component)	Unstandardized		Standardized Coefficient (β)	t	Significance (p)
	Regression Coefficient (B)	Standard Error (SE_B)			
Social	.418	.112	.374	3.716	.000
Easy Course	-.063	.104	-.056	-.604	.548
External Benefits	.170	.109	.152	1.562	.123
Invited	-.194	.101	-.174	-1.933	.058
Singing	.111	.109	.100	1.016	.313
Self-Improvement	.163	.106	.146	1.540	.129
Unique Class	.303	.109	.271	2.787	.007

Summary of Results

Participants

The present study included a convenience sample ($N = 82$) of (a) male choral students who sang in elective secondary-level choruses in private schools ($n = 73$) and (b) the directors of these choruses ($n = 9$). All participants came from six private, religiously-affiliated schools located in central North Carolina.

Methodology

The researcher used two hardcopy surveys to collect data from participants. The *Choral Director Survey* (see Appendix A.1) was completed by the choral director participants. The *Male Choral Student Survey* (see Appendix A.2) was completed by the male student participants. After obtaining the appropriate approvals, consents, and

assents, the researcher administered both the *Choral Director Surveys* and the *Male Choral Student Surveys* at six private school locations. Once all surveys had been administered and collected, the researcher compiled and analyzed the survey results.

Research Question One: Comparison of Number of Male and Female Choral Students

Research question one was: “What were the numbers of males, as compared to females, in middle and high school choruses in private schools in central North Carolina?” From data collected from the *Choral Director Survey* (CDS), the researcher determined that there were a total of 240 female students in the 11 secondary school choruses, and a total of 109 male students in the 11 secondary school choruses. There were 131 more female choral students than male choral students, and the ratio of female choral students to male choral students was approximately 2.20:1. On average, males comprised approximately 31% of the total of secondary school chorus students.

Research Question Two: Male Initial Participation in Chorus

Research question two was: “When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina *initially* choose to participate in these ensembles?” Data from Part One of the *Male Choral Student Survey* (MCSS) was used to answer this research question, and the internal reliability was consistent with a high level of item-to-item reliability ($\alpha = .921$). The researcher calculated descriptive statistics for the compiled data. Male student participants assessed 52 items on a scale from 1 (i.e., “not important at all”) to 5 (i.e., “very important”). The highest item mean in Part One of the MCSS was 4.30 for the

item “I enjoy music.” The lowest item mean in Part One of the MCSS was 1.96 for the item “I was invited by girls who sing in this chorus.” In addition to descriptive statistics, the researcher used a factor analysis statistical procedure to reduce the initial 52 survey items to two representative primary factors: (a) Factor One, an interest in and enjoyment of music and chorus, and (b) Factor Two, an interest in a class that was less difficult and time consuming than other available class options. Primary Factor One explained approximately 43% of the total variance in male student participant responses, and primary Factor Two explained approximately 12% of the variance. Therefore, when added together, these two primary factors accounted for approximately 55% of the total variance in the participants’ responses on Part One of the MCSS.

Research Question Three: Male Continued Participation in Chorus

Research question three was: “When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina choose to *continue* to participate in these ensembles?” Data from Part Two of the *Male Choral Student Survey* (MCSS) was used to answer this research question, and the internal reliability was consistent with a high level of item-to-item reliability ($\alpha = .939$). The researcher calculated descriptive statistics for the compiled data. The highest item mean in Part Two was 4.19 for the item “I enjoy music.” The lowest item mean was 2.26 for the item “singing in chorus gives me a better chance of being selected to participate in the school musical.” In addition to descriptive statistics, the researcher also used a multiple regression procedure with data from Part Two of the MCSS to determine if there were a few significant motivating predictors of the male student participants’ intentions to

continue to participate in chorus again the next school term. First, a principal components analysis was used to reduce the number of items from the 52 on the MCSS Part Two to a fewer number of principal components that best represented the spectrum of the original group of items while still accounting for as much of the original data variance as possible. The researcher identified seven components that represented 65.396% of the original survey response variance. These seven components were: (a) social, (b) easy course, (c) external benefits, (d) invited, (e) singing, (f) self-improvement, and (g) unique class. These seven components were used as the independent predictor variables in the multiple regression procedure. The dependent variable was the participants' intentions concerning participating in chorus during the next school term. The multiple correlation coefficient (R) equaled .701, R square (R^2) equaled .491, and adjusted R Square ($adj. R^2$) equaled .436. The seven independent variables combined explained 43.6% of the variability of the dependent variable. This multiple regression model of seven components was found to be a statistically significant predictor of the students' intention to continue chorus participation during the next school term ($p < .000$). The multiple regression equation was: students' intent = $4.056 + (.418 * \text{social}) - (.063 * \text{easy course}) + (.170 * \text{external benefits}) - (.194 * \text{invited}) + (.111 * \text{singing}) + (.163 * \text{self-improvement}) + (.303 * \text{unique class})$. In addition, variable coefficients of two of the seven components were found to be significantly different than zero: social ($p < .000$) and unique class ($p < .007$).

CHAPTER V
CONCLUSIONS

**Research Question One:
Comparison of Number of Male and Female Choral Students**

Research question one was: “What were the numbers of males, as compared to females, in middle and high school choruses in private schools in central North Carolina?” The present researcher confirmed the results of numerous previous studies regarding the number of males, as compared to females, in middle and high school choruses. However, there was one previous finding that was not confirmed.

Support for Previous Research on Number of Males in Chorus

The present researcher confirmed findings of previous music education researchers who found that males chose to participate in middle and/or high school choral ensembles in smaller numbers than females (Adler, 1999; Demorest, 2000; Harrison, 2004; Newlin, 2007; Quinn, 2004; Rohwer & Rohwer, 2009). In the present study, the total number of males in the combined 11 school choruses equaled 109, and the total number of females in the combined 11 school choruses equaled 240. In addition to fewer males than females participating in school choruses in *aggregate*, the number of males in *each* of the 11 school choruses was smaller than the number of females in the same choruses (see Table 6).

The present researcher also confirmed the results of Adderley et al. (2003) who found twice as many females as males singing in secondary school choruses. In the present study, there were approximately 2.2 females for every male in the secondary school choruses, that is, approximately twice as many females than males.

Differences from Previous Research on Number of Males in Chorus

The present researcher did not confirm Freer's (2009, 2010) findings that the number of males participating in chorus decreased as the participants moved through middle and high school. In contrast, the present researcher found more males participating in high school choruses than in middle school choruses. The present study's findings may be analyzed in four ways: (a) the *percentage* of males in middle school chorus and high school choruses can be compared on a *total* basis, (b) the *percentage* of males in middle school choruses and high school choruses can be compared on a *per school* basis, (c) the *number* of males in middle school choruses and high school choruses can be compared on a *total* basis, and (d) the *number* of males in middle school choruses and high school choruses can be compared on a *per school* basis.

When analyzing the present researcher's finding the first way, that is, by comparing the *percentage* of males in middle school choruses to the percentage of males in high school choruses on a *total* basis, the totals from all 11 participating choruses can be included. The present researcher found that the middle school choruses were 28% male while the high school choruses were 35% male (see Table 4 and Table 5).

When analyzing the present researcher's findings in the other three aforementioned ways, one middle school chorus was excluded from the analysis. One of

the schools included in the present study comprised only grades kindergarten through eighth; therefore, while it offered a middle school chorus, it did not have a high school in which to offer a high school chorus. The other five schools included in the present study had classes through twelfth grade and had both a middle school chorus and a high school chorus. So, while a comparison can be made on a total percentage basis including the school with no high school chorus, when comparing the total number of middle school chorus students to the total number of high school chorus students, a comparison of the total number of male students in six middle school choruses with the total number of male students in five high school choruses would be inappropriate. Likewise, when comparing numbers or percentages of males in middle and high school choruses on a per school basis, the school without a high school chorus would have no high school chorus numbers with which to compare. So, in the remaining three comparisons, only five schools, each with both a middle school chorus and a high school chorus are included.

When analyzing the present researcher's findings the second way, that is, by comparing the *percentage* of males in middle school chorus to the percentage of males in high school choruses on a *per school* basis, one school (school two) had an equal percentage of males in both middle and high school choruses (i.e., 32% in both choruses). Two of the schools (schools one and five) had a slightly higher percentage of males in middle school chorus than in high school chorus (i.e., 2% higher in each school). The remaining two schools (schools three and six) had substantially lower percentages of males in their middle school choruses than in their high school choruses; school three had

10% fewer males in middle school chorus and school six had 26% fewer males in middle school chorus.

The third way of analyzing the present researcher's findings was to compare the *number* of males in middle school choruses to the number of males in high school choruses on a *total* basis. The present researcher found a total of 46 middle school male students in the five middle school choruses compared to a total of 58 high school male students in the five high school choruses.

Finally, when analyzing the present researcher's findings the fourth way, that is, by comparing the *number* of males in middle school chorus to the number of males in high school choruses on a *per school* basis, the results show two schools (schools one and five) had slightly more males in their middle school choruses than in their high school choruses (i.e., two to three more males per school). The other three schools (schools two, three, and six) had fewer males in their middle school choruses than in their high school choruses (i.e., from four to eight more males) (see Table 6).

Based on these results, the present researcher cannot confirm Freer's (2009, 2010) findings that the number of males participating in chorus decreased from middle school through high school. In contrast, while a few exceptions can be found in specific choruses, in the present research, both the numbers and percentages of males participating in chorus increased from middle to high school. This finding is a promising sign for choral directors. Numbers from the present study appear to indicate that while the number of males participating in vocal education drops between elementary and

middle schools (Raiber and Teachout, 2014), the trend partially may be reversed as males progress from middle school into high school.

Research Question Two: Male Initial Participation in Chorus

Research question two was: “When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina *initially* choose to participate in these ensembles?” In the present study, there were two primary factors associated with males’ motivations to initially choose to sing in middle or high school choruses: (a) Factor One: an interest in and enjoyment of music and chorus and (b) Factor Two: an interest in a less difficult and time consuming class than other available class options.

Uniqueness of the Present Study

This researcher found no similar studies of male chorus participation that dedicated a substantial portion of the study to males’ *initial* decision to sing in a chorus, as compared to why they later decided to *continue* to sing in chorus. While chorus recruitment likely takes place outside of the chorus classroom, choral retention activities likely take place in the choral classroom. When investigating why male middle and high school students in private schools in central North Carolina *initially* choose to participate in these ensembles, as previously indicated, the researcher identified two primary factors contributing to males’ decisions. When investigating why male middle and high school students in private schools in central North Carolina choose to *continue* to participate in these ensembles, as previously indicated, the researcher identified two significant

predictors of males' intentions. While there were similarities in why males *initially* choose to participate in chorus as compared to why they choose to *continue* to participate in chorus, there were also differences. Choral directors should consider both the similarities and differences in these male student motivations when attempting to attract and retain male singers.

Using Primary Factor One to Recruit Chorus Members

The identification of two primary factors influencing male student motivation to initially join school choruses should assist choral music educators in promoting their choruses to potential male recruits. Of the two primary factors, Factor One, an interest in and enjoyment of music and chorus, accounted for 43% of the variance in Part One of the *Male Choral Student Survey* (MCSS) responses, and Factor Two, an interest in a less difficult and time consuming class than other available class options, accounted for approximately 12% of the variance. Factor One accounted for approximately 3.5 times the variance than did Factor Two.

The primacy of music motivation should embolden choral directors to stress the development of musicianship in chorus and to appeal to potential chorus members' enjoyment of music and chorus. Recruiting methods designed around this important motivating factor might include setting high music standards in school choruses and demonstrating excellence in performances. Taking advantage of opportunities for choruses to perform for the student body, either in-person or via the use of media, may be another way to appeal to recruits' interest in music. In addition, providing other enjoyable music experiences related to chorus, such as opportunities for solo or ensemble

work, may attract male singers who are driven by their interests in music and chorus. Choral directors may recruit male singers by communicating current chorus members' enjoyment of singing in chorus. This communication might be accomplished through mass promotional testimonials from current chorus members or via one-on-one personal conversations between current chorus members and recruits.

An examination of male student participant responses to individual items in Part One of the MCSS revealed additional possible recruitment strategies. Both the MCSS items "I wanted to improve my singing ability" and "I wanted to improve my musical knowledge" were highly correlated with primary Factor One. Of the two items, "I wanted to improve my singing ability" was the item most highly correlated with Factor One with a correlation coefficient of .874. The item "I wanted to improve my musical knowledge" had a correlation coefficient of .706. Choral directors, therefore, should provide the necessary learning experience that facilitates improvements of current chorus members' music abilities and knowledge. Directors also might promote chorus to prospective members as an opportunity to improve vocal skills and to learn more about music. This promotion might be accomplished en masse by allowing current chorus members to demonstrate their new music knowledge by introducing songs at chorus concerts. Such student introductions could highlight interesting background information, musical themes, or unique aspects of the concert songs to the audience. This type of promotion also might occur when current chorus students share the musical knowledge they have gained through chorus in their personal conversations with non-chorus peers.

Finally, the items (a) “I enjoy being a part of the group,” (b) “I think chorus is a good way to make new friends,” (c) “I enjoy the teamwork atmosphere in chorus,” and (d) “I feel very socially connected to members of this chorus” were all correlated with primary Factor One, an interest in and enjoyment of music and chorus. The correlation coefficients between these items and Factor One were, respectively: (a) .722, (b) .702, (c) .666, and (d) .644. While the results of this present study did not justify a unique primary social factor underlying why males initially decide to sing in chorus, there did seem to be a social component to Factor One. Some of the participants’ attraction to chorus was apparently driven by their desire to work as a team, participate in a group activity, and build new social relationships. Thus, these social aspects of chorus should also be promoted to potential new chorus members. One use of the social aspects element of Factor One to recruit new male members might be to have a reception after a chorus performance. The choral director could instruct current chorus members to mingle with recruits during this social event and share with them stories about the comradery chorus members share with each other or how they enjoy working as a team with other chorus members. Another way to use this element to recruit new chorus members might be simply for the chorus director to encourage current chorus members to discuss the social aspects of chorus when networking with their school friends and acquaintances.

Using Primary Factor Two to Recruit Chorus Members

Factor Two, an interest in a less difficult and time consuming class than other available class options, accounted for 12% of the total variance of the responses to Part

One of the MCSS. While this percentage was substantially less than the variance accounted for by Factor One, an interest in and enjoyment of music and chorus (i.e., 43% of the total variance of the responses), Factor Two was still one of the two primary motivations for male participants to initially join choruses. Promoting chorus as an easy class might not be a choral directors' preferred promotional message. Based on the results of the present research, however, this message seems to be needed to attract a portion of chorus prospects. Helping students mature in their interest, knowledge, and enjoyment of music is probably a choral director's ultimate goal, but the director cannot accomplish this goal if students never join the chorus. If a choral director is successful in recruiting new chorus members, even via an appeal to their desire for an easy class, the director then will have the opportunity to impact their lives with musical information and experiences; this information and these experiences may later lead to students having a greater interest in, knowledge about, and enjoyment of music. Promotion of chorus as an easy class, however, probably needs to be handled with tact and with the advance knowledge and support of school administration. If promotion of chorus as an 'easy' class is problematic, the use of alternate wording may prove more acceptable. Choral director may instead choose to communicate that there is limited written work in the class, or that the class is different from other school classes.

Support for Previous Studies

Identification of the two primary motivational factors associated with males' initial motivation to participate in chorus also confirms previous research findings.

Primary Factor One, an interest in and enjoyment of music and chorus, reinforces findings of several previous researchers.

Kennedy (2002) discovered that enjoyment of singing was a motivator for singing in chorus. One of the items in the present study that comprised Factor One was “I like to sing.”

Both Sichivitsa (2003) and Rohwer (2010) found that music and social factors were motivators for choir participation. Sichivitsa discovered that participants who valued music highly and who were socially integrated into the choir were more likely to continue to pursue musical endeavors in the future. The present researcher discovered that an interest in and enjoyment of music and chorus was a motivator for males to initially join a school chorus. In addition, social factors seemed to play a part in why students were interested in and enjoyed music and chorus. Sichivitsa also discovered that, of the two factors identified, “the value of music was the strongest direct predictor of musical intentions” (p. 338). The present researcher identified two primary factors that initially motivate male students to participate in a school chorus. Of the two factors identified by the present researcher, the stronger of the two was Factor One, an interest in and enjoyment of music and chorus.

Differences from Previous Studies

Surprisingly, a primary factor dominated by social motivators was not one of the two primary factors identified relative to male student participants’ decisions to initially join a school chorus. Freer (2009), Kennedy (2002), Rohwer (2010), Sichivitsa (2003), and Siebenaler (2006) identified social reasons as motivations for singing in a chorus. In

addition, Sweet (2010) suggested that participants enjoyed the teamwork atmosphere of singing in chorus. While there was a social element to Factor One (i.e., an interest in and enjoyment of music and chorus), social items were not the highest loading items in the factor. As compared to previous research findings, the lower emphasis of social motivation in male participants' decision to initially join chorus may have resulted from their lack of experience in chorus. In the present study, social items did load higher in male student participants' decisions to continue to sing in chorus than in their decisions to initially sing in chorus. This finding possibly supports the premise that once males have experienced chorus participation, they better understand the social nature and advantages of chorus.

Research Question Three: Male Continued Participation in Chorus

Research question three was: "When chorus participation was optional, why did male middle and high school students in private schools in central North Carolina choose to *continue* to participate in these ensembles?" The identification of two components (i.e., social and unique class) that were significant predictors of middle and high school male choral students' intentions to continue to participate in chorus during the next school term should assist choral music educators in retaining current male singers.

Using the Social Component to Retain Chorus Members

Of the two significant components, social had the larger regression weight, or coefficient, (i.e., .418) and the smaller *p*-value (i.e., .000). Having the larger regression weight of the two components indicated that the social component had the larger

influence than the unique class component on predicting the male choral students' intentions to continue to sing in chorus during the next school term. Having the smaller *p*-value of the two individually significant components indicated the likelihood that the social component's influence is due to chance is smaller than that of the unique class component. Therefore, choral directors who want to retain their male students into the next school term should be particularly cognizant of the social aspects of chorus. There were 11 items that correlated highly with the social component (see Table 15). These 11 items could be helpful in understanding this component and in determining how to use it to better retain male singers.

The most highly correlated item to the social component was "I enjoy the teamwork atmosphere we have in chorus". Choral directors should consider this motivational item when conducting rehearsals. In addition to the choral directors selecting appropriate choral literature for the choruses, directors may also want to allow students to have input into the selection of some of the choral literature to be sung. Allowing such input may help students feel they play a more important role in the chorus team. Directors may also want to allow students to work in small ensembles, under the directors' guidance, to select and prepare small ensemble literature. Permitting student input into chorus performance opportunities may also appeal to male students' attraction to a teamwork atmosphere in chorus.

The next two items that were the highly correlated to the social component, in decreasing order of their correlation, were "I feel socially connected to other members of the chorus" and "I think chorus is a good way to make new friends." When considering

the male student retention implications of these items, some choral directors may need to review their rehearsal student behavior policies and rehearsal formats. While a very strict student no talking policy and regimented rehearsal format may allow rehearsal times to be more productive in regards to learning choral literature, this policy and format may also decrease the social aspect of chorus. Reducing chorus members' opportunities for feeling socially connected to other chorus members of the chorus and reducing their opportunities for making new friends may work against a director's desire to retain male singers for future school terms.

The next four items that correlated with the social component, in decreasing order of their correlation, were "I enjoy the pace of learning in chorus class," "I enjoy being part of the group," "of the positive reputation of this chorus," and "I want to encourage others to sing in chorus too." When considering male student retention in light of these items, balance is required. A positive reputation of a chorus may be tied to its ability to achieve a high level of performance quality. Many times such a performance level requires diligent and focused rehearsals. The other items in this grouping, "I enjoy the pace of learning in chorus," "I enjoy being part of the group," and "I want to encourage others to sing in chorus too" could appeal to male students' desire for more peer-to-peer communication or could be related to a desire to belong to, and have others belong to, a chorus with a positive reputation. Either way, when considering all seven of the items reviewed thus far, choral directors will need to balance the need for productive rehearsals with the need to allow for student-to-student interaction and cooperation time in order to assist with male student retention.

The final four items that correlated highly with the social component, in decreasing order of their correlation, were “I like the songs the chorus sings,” “Chorus is an active class,” “Chorus is fun,” and “I like the chorus performance attire.” Since these are the least correlated of the social component’s highly correlated items, they may have the least impact of the component’s influence in male retention. However, choral directors may still want to keep these items in mind when selecting choral literature, selecting chorus performance attire, and designing the choral rehearsal experience.

Using the Unique Class Component to Retain Chorus Members

Of the two significant components, unique class had the smaller regression weight (i.e., .303) and the larger *p*-value (i.e., .007). So, while it did not influence male participants’ retention as highly as the social component, it did influence retention. Having the larger *p*-value, although only slightly larger than the social component (i.e., by .007), meant that there was a greater likelihood that this component was due to chance than was the case with the social component. The three most highly correlated items to the unique class component were “Chorus is different from other school classes,” “Anyone can sing,” and “It is the best alternative of my available options.” While choral directors may have limited influence on what the students’ alternative class options are, the directors can offer a chorus class that is open to any student who desires to sing. This open policy seems to aid in retaining male students. To maximize male student retention, choral directors may also want to highlight, both via spoken communication and via the way the chorus class is structured, the differences between chorus and other school classes.

Support for Previous Studies

Freer (2009), Kennedy (2002), Rohwer (2010), Sichivitsa (2003), and Siebenaler (2006) identified social reasons as motivations for singing in a chorus. In addition, Sweet (2010) suggested that participants enjoyed the teamwork atmosphere of singing in chorus. With the identification of a significant social component in male students' decisions to remain in chorus during the next school term, the present researcher confirmed findings of these previous music education researchers.

In addition to confirming the findings of previous studies concerning the effect of the social aspects of chorus, the present researcher found that there were reasons (i.e., items) that were highly correlated with the predictive components in the present study that in previous research had been identified as motivators for participation in chorus. For example, Sichivitsa (2002) documented that college students were motivated to continue to sing in choral ensembles as a result of their choral teacher's professionalism, friendliness, and high personal standards. In the present study, "the influence of the chorus teacher" was a reason (i.e., item) that highly correlated to the component unique class. Unique class was found to be a significant predictor of male students' decisions to continue to sing in chorus again during the next school term.

Differences from Previous Studies

There were a number of items that were identified in previous studies that the present research did not confirm. For example, determining male student participants' musical self-esteem was outside of the scope of the present study; so, the present

researcher was unable to confirm Austin's (1990) finding that self-esteem of musical ability was a significant predictor of music involvement.

Kennedy (2002) identified that participants enjoyed the limited amount of written assignments in the chorus. In the present study the item, "I like the limited amount of written assignments in this course" correlated with the easy course component in Part Two of the MCSS, but the component easy course was not found to be a significant individual predictor of male choral students' decisions to continue to sing in chorus during the next school term.

Kennedy also documented that participants enjoyed the act of performing. Siebenaler (2006) identified liking to perform music and liking to perform music for others as two out of eight independent variables that accounted for 88.5% of the variance regarding students' decisions to continue to sing in a chorus. In the present study, "I like to perform for others" was an item from Part Two of the MCSS that correlated highly with the component singing. The component singing, however, was not found to be one of the three individually significant predictors of males student participants' intentions to sing in chorus again during the next school term.

Both Kennedy (2002) and Sichivitsa (2002) documented the influence parental musical encouragement had in males' decisions to sing in chorus. In the present research, the item "of my family's influence" was removed from the analysis because this item's individual Kaiser-Meyer-Olkin score was low during the principal component analysis procedure. The present researcher, as a result, could not confirm that parental musical encouragement influenced males continued participation in chorus.

Limitations

Scope Limitations

This present study was limited to data collected from hardcopy surveys of male choral student participants ($n = 73$) and choral director participants ($n = 9$) from six private schools in central North Carolina. The present researcher did not gather data on the total number of students in each school or the number of students in other secondary school music classes (e.g., general music, music appreciation, and/or band). Due to this limitation, the researcher could not determine the percentage of the schools' students who chose to participate in any kind of secondary school music education, or more specifically, the percentage of the schools' total students who chose to participate in chorus. The researcher, therefore, did not confirm the results of previous researchers who found that most secondary school students do not enroll in formal music activities (Adderley et al., 2003; Austin, 1990; Carey et al., 2002; Raiber & Teachout, 2014; West et al., 1984).

The scope of the present study also did not include any comparison of the percentage the schools' students who chose to participate in chorus, as compared to the percentage of the schools' students who chose to participate in other middle and high school music classes. Given the scope of data collection in the present study, the researcher also did not confirm that the number of students who participate in choral music classes in secondary schools was small in relation to the total number of students in these schools (Center for Educational Statistics, 1988; Mizener, 1993).

Finally, the present study's scope focused on what motivated male student participants to initially choose to and continue to choose to sing in chorus. However, the scope of the present study did not include gathering or analyzing data concerning factors that possibly discourage males from singing in middle and high school choruses.

Sampling Limitations

Neither the survey sites nor the participants were selected randomly, and therefore, conclusions from this study may or may not generalize to the population from which the school choruses and male chorus students were selected. These conclusions also may or may not generalize to choruses, choirs, chorales, glee clubs, show choirs, or vocal ensembles of communities, religious groups, or other organizations or affinity groups. The samples also were limited by: (a) the number of middle and high school principals who permitted the present researcher to conduct research at their schools, (b) middle and high school choral directors who were willing to participate, (c) parents of minor children who consented to their son's participation, (d) adult male students who consented to participate, and (e) minor male students who assented to participate.

The sample was limited by additional choral director related constraints. One such constraint was the amount of time choral directors were willing to dedicate to distributing survey recruitment packets and to collecting signed consent forms (see Appendices E and F). Because the male student surveys were administered during the choruses' rehearsal times, the choral director also had to be willing to forego a portion of their rehearsal time with their male students. The sample was limited by two additional male student related constraints. The number of minor male students who remembered to

return their signed parental consent forms to their choral director and the number of male students who chose to sing in the choruses limited the sample of the present study. Finally, the sample size also was limited by the researcher time required to travel to multiple research locations—both to deliver recruitment packets to choral directors and to administer and collect surveys.

Statistical Procedure Limitations

The statistical procedures and variables that were used to analyze the data were limited by both the sample size and by the Likert-type response scale selected for Part Three of the *Male Choral Student Survey* (MCSS). Ideally, all 52 items from Part One of the MCSS would have been used as variables in the factor analysis statistical procedure; however, use of all 52 items required a sample size of 156 (i.e., 52 items * 3) (Asmus, 1989). Because of the present study's sample size ($N = 73$), the present researcher instead used the 24 (i.e., $73/3$) items with the highest mean scores as variables in the factor analysis. Likewise, the researcher ideally would have used all 52 items in Part Two of the MCSS as independent variables in the regression statistical procedure, but to legitimately do so, a sample size of 520 (i.e., 52 items * 10) would have been needed (Howell, 2010). Instead of using all 52 items, the researcher chose to use a principal component analysis to reduce the number of independent variables to seven (i.e., 73 male student participants/10) within the regression analysis. Because male choral student responses to Part Three of the MCSS were assessed on a Likert-type scale, the ideal regression procedure to use to analyze the data and answer research question three (i.e., "When chorus participation was optional, why did male middle and high school students

in private schools in central North Carolina choose to *continue* to participate in these ensembles?") was an ordinal regression procedure. However, since the data violated the ordinal regression model's assumption of proportional odds, an alternate regression procedure needed to be selected. The researcher chose a multiple regression procedure as a substitute for ordinal regression.

Suggestions for Future Research

Because much of the related research concerning male motivation for singing in choral ensembles has been conducted in public schools, additional research in private schools in geographical locations outside of central North Carolina needs to be conducted to add to the currently available knowledge. Additional research concerning male involvement and motivation for singing in non-school choruses—including church, community, and affinity-group choirs—also may increase the breadth and depth of the related literature.

Because the present research was limited by its sample size, future music education researchers may consider using an online survey model rather than the hardcopy model used in the present study. In an online model, an introduction followed by a link to the recruitment information, consent and assent forms, and survey might be emailed to the school administration or the choral directors who could digitally forward this introduction and link to the male choral students' parents. There are potentially several benefits to an online survey model. An online survey model could allow choral directors and students to complete the surveys at more flexible times and locations than is possible with a hardcopy model. An online model also reduces or eliminates the need for

choral directors to forego rehearsal time with their male students. Because it may be possible to give consent and assent online immediately prior to completion of the surveys, the consent and assent process may be streamlined. This streamlining could potentially prevent the loss of participants due to their failure to return consent forms. An online survey model also reduces researcher travel and survey administration time compared to a hardcopy survey model. Finally, an online model might allow for the inclusion of more schools, over a larger geographic region, than was possible with the present study's hardcopy model. With the evolution of technology, other ways of gathering data could also be available to future music education researchers.

The present researcher did not attempt to distinguish between choral participation motivators of male middle school students and male high school students. Additional research into the differences in motivation, if any, between these two subsets of male choral students might prove beneficial.

Finally, the current researcher found some differences between the number and percentages of males who participated in middle school choruses as compared to high school choruses. If future researchers confirm such differences, data and analysis of the reasons for differences could help choral music educators.

Even though related literature concerning the missing male phenomenon in choral ensembles was available prior to the present study, the present research was needed because the missing male phenomenon persists in choral ensembles. Accomplishing the objectives of the present research—to analyze what motivates males to *initially* choose to participate in school choruses and why males chose to *continue* to participate in school

choruses--provides constructive information to not only school choral directors, but also to choral directors of religious, community, and affinity group choirs, in both recruiting and retaining male singers in the ensembles they lead. The researcher hopes that any increased male choral participation resulting from this present study also is of value to the males themselves as they experience the many benefits of making music together with other singers.

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APPENDIX A**SURVEYS**

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APPENDIX A.1

CHORAL DIRECTOR SURVEY (CDS)**Choral Director Survey**

Please supply the information requested below. If you direct multiple choruses, please complete this survey once for each chorus. Thank you for your assistance with this project!

1. Is this chorus an elective class/activity? Please check "Yes" or "No" below.

_____ Yes (that is, students can elect to take another class instead of chorus)

_____ No (students must take chorus)

2. Please circle all the grade levels of the students who are eligible to participate in this chorus:

3 rd	4 th	5 th	6 th	7 th
8 th	9 th	10 th	11 th	12 th

3. Do you consider this chorus to be primarily:

_____ A middle school chorus

_____ A high school chorus

_____ A middle & high school chorus

_____ Other, please state how you categorize this chorus? _____

4. How many total students participate in this chorus?

5. How many of these total students are female?

6. How many of these total students are male?

APPENDIX A.2

MALE CHORAL STUDENT SURVEY (MCSS)**Male Choral Student Survey**

Please answer each question below. Please do **not** put your name on this paper. Thank you for your assistance with this project!

- 1) The following statements indicate why someone might **initially decide to join** a chorus. Please rate how important each statement was to your **initial decision to join** this chorus.

The **first time** I decided to sing in this chorus, I did so because...

	Very Important	Important	Undecided	Not Very Important	Not Important at All
a. Of my family's influence.					
b. I enjoy the teamwork atmosphere in chorus.					
c. Of the influence of a teacher, other than the chorus teacher.					
d. Anyone can sing.					
e. Chorus is different from other school classes.					
f. I wanted to improve my musical knowledge.					
g. It was the best alternative of my available options.					
h. Cool guys were singing in this chorus.					
i. Guys who can sing are attractive to girls.					
j. Of the presence of other guys in this chorus.					
k. Chorus students get free food.					
l. I didn't have to meet any skill level requirement to sing in this chorus.					
m. It allows me to express myself emotionally.					
n. I always wanted to sing in a chorus.					
o. I like being challenged by the difficult music in chorus.					
p. Of a religious calling.					
q. Participation in chorus helps in other academic areas.					
r. Chorus was recommended by someone other than family members and school teachers.					
s. I enjoy music.					
t. I like to sing.					

	Very Important	Important	Undecided	Not Very Important	Not Important at All
u. I like to perform for others.					
v. I thought it would be an easy course.					
w. It's relaxing.					
x. Chorus allows me to demonstrate my talent.					
y. Of the influence of the chorus teacher.					
z. I have friends who sing in this chorus.					
aa. I enjoy the pace of learning in chorus class.					
bb. Chorus is an active class--not one where you just sit still.					
cc. I wanted to take advantage of this school opportunity.					
dd. I thought it would enhance my college application.					
ee. There are a lot of girls in chorus.					
ff. I like the songs this chorus sings.					
gg. I liked the chorus' performance attire.					
hh. I would get honors credit for taking chorus.					
ii. Of my previous experience in another chorus.					
jj. I thought it would be fun.					
kk. Singing in chorus is a source of pride for me.					
ll. I sing well.					
mm. I think chorus is a good way to make new friends.					
nn. Of the positive reputation of this chorus.					
oo. It allows me to occasionally skip other classes.					
pp. I feel very socially connected to the members of this chorus.					
qq. I was invited by girls who sing in this chorus.					
rr. Of the light workload in this class.					
ss. I like the limited amount of written assignments in this course.					
tt. Singing in chorus gives me a better chance of being selected to participate in the school musical.					
uu. I wanted to improve my singing ability.					
vv. I like to go on trips away from school.					
ww. I wanted to encourage others to sing in chorus too.					
xx. Because the chorus teacher knows how to help us through the male vocal change.					
yy. I enjoy being a part of the group.					
zz. I became aware that males could join chorus.					

- 2) The following statements indicate why someone might **continue to sing** in a chorus for a second (or third, or other subsequent term). Assume that you had the opportunity to sing in this chorus again (that is, that you were not graduating or otherwise aging out of this chorus). Please rate how important each statement is to your decision to **continue to sing** in this chorus next term.

I would **continue to sing** in this chorus because...

	Very Important	Important	Undecided	Not Very Important	Not Important at All
a. Of my family's influence.					
b. I enjoy the teamwork atmosphere we have in chorus.					
c. Of the influence of a teacher, other than the chorus teacher.					
d. Anyone can sing.					
e. Chorus is different from other school classes.					
f. I want to improve my musical knowledge.					
g. It is the best alternative of my available options.					
h. Cool guys sing in this chorus.					
i. Guys who can sing are attractive to girls.					
j. Of the presence of other guys in this chorus.					
k. Chorus students get free food.					
l. I don't have to meet any skill level requirement to sing in this chorus.					
m. It allows me to express myself emotionally.					
n. I have always wanted to sing in a chorus.					
o. I like being challenged by the difficult music in chorus.					
p. Of a religious calling.					
q. Participation in chorus helps in other academic areas.					
r. Chorus participation is encouraged by someone other than family members and school teachers.					
s. I enjoy music.					
t. I like to sing.					
u. I like to perform for others.					
v. It will be an easy course.					
w. It's relaxing.					
x. Chorus allows me to demonstrate my talent.					
y. Of the influence of the chorus teacher.					

	Very Important	Important	Undecided	Not Very Important	Not Important at All
z. I have friends who sing in this chorus.					
aa. I enjoy the pace of learning in chorus class.					
bb. Chorus is an active class--not one where you just sit still.					
cc. I want to take advantage of this school opportunity.					
dd. I think it will enhance my college application.					
ee. There are a lot of girls in chorus.					
ff. I like the songs this chorus sings.					
gg. I like the chorus' performance attire.					
hh. I get honors credit for taking chorus.					
ii. Of my previous experience in another chorus.					
jj. It is fun.					
kk. Singing in chorus is a source of pride for me.					
ll. I sing well.					
mm. I think chorus is a good way to make new friends.					
nn. Of the positive reputation of this chorus.					
oo. It allows me to occasionally skip other classes.					
pp. I feel very socially connected to the members of this chorus.					
qq. I was invited to continue to sing by girls who sing in this chorus.					
rr. Of the light workload in this class.					
ss. I like the limited amount of written assignments in this course.					
tt. Singing in chorus gives me a better chance of being selected to participate in the school musical.					
uu. I want to improve my singing ability.					
vv. I like to go on trips away from school.					
ww. I want to encourage others to sing in chorus too.					
xx. Because the chorus teacher knows how to help us through the male vocal change.					
yy. I enjoy being a part of the group.					
zz. Males are allowed to sing in chorus.					

- 3) **Assume that you had the opportunity to sing in this chorus again** (that is, that you were not graduating or otherwise aging out of this chorus). Please indicate how much you agree or disagree with the statement below.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
I plan to sing in this chorus again during the next school term.					

APPENDIX B

IRB APPROVAL LETTER



THE UNIVERSITY of NORTH CAROLINA
GREENSBORO

OFFICE OF RESEARCH INTEGRITY
2718 Beverly Cooper Moore and Irene Mitchell Moore
Humanities and Research Administration Bldg.
PO Box 26170
Greensboro, NC 27402-6170
336.256.0253
Web site: www.uncg.edu/orc
Federalwide Assurance (FWA) #216

To: Chris Haire
Music Education
304 Coorsdale Drive, Cary, NC 27511

From: UNCG IRB

Authorized signature on behalf of IRB

Approval Date: 7/07/2014
Expiration Date of Approval: 7/06/2015

RE: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)
Submission Type: Initial
Expedited Category: 7.Surveys/interviews/focus groups
Study #: 13-0374
Study Title: Motivation for Males to Participate in Middle and High School Choruses: A Descriptive Study

This submission has been approved by the IRB for the period indicated. It has been determined that the risk involved in this research is no more than minimal.

Study Description:

The purpose of this descriptive study is to analyze male participation in select middle school and high school choruses in central North Carolina and to determine primary motivators for these males' initial and continued participation. Motivator data from a pilot study, using a Delphi technique, will be used in developing a portion of a hardcopy survey which will be administered in this study. In addition to gathering data on primary motivators, the researcher will also gather data on the numbers of males and females who participate in these middle and high school choruses.

Regulatory and other findings:

- This research, which involves children, meets criteria at 45 CFR 46.404 (research involving no greater than minimal risk). Permission of one parent or guardian is sufficient.
- If your study is contingent upon approval from another site (schools), you will need to submit a modification at the time you receive that approval.

Investigator's Responsibilities

Federal regulations require that all research be reviewed at least annually. It is the Principal Investigator's responsibility to submit for renewal and obtain approval before the expiration date. You may not continue any research activity beyond the expiration date without IRB approval. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned to you in a separate email. Stamped consent forms must be used unless the IRB has given you approval to waive this requirement. Please notify the ORI office immediately if you have an issue with the stamped consent forms.

You are required to obtain IRB approval for any changes to any aspect of this study before they can be implemented (use the modification application available at <http://integrity.uncg.edu/institutional-review-board/>). Should any adverse event or unanticipated problem involving risks to subjects or others occur it must be reported immediately to the IRB using the "Unanticipated Problem-Adverse Event Form" at the same website.

APPENDIX C**LETTER OF SUPPORT SAMPLE**

Dear IRB,

As the [*principal/administrator/headmaster*] of [*name of school*], I support Chris Haire at the UNCG School of Music, Theatre, & Dance in his effort to recruit our choral directors, parents of male choral students, and adult male students for the research project titled Motivation for Males to Participate in Middle and High School Choruses: A Descriptive Study. I understand that Mr. Haire will be recruiting our school's choral directors, parents of male choral students, and adult male students. I further understand that data collection will occur at our school.

Sincerely,

[*principal's/administrator's/headmaster's email signature*]

APPENDIX D**CHORAL DIRECTOR RECRUITMENT EMAIL**

Dear Choral Director,

I am a PhD student, at the University of North Carolina at Greensboro, and am focusing my dissertation research on what motivates middle and high school males to sing in optional school choruses. If you conduct a middle and/or high school, elective, chorus, I am requesting your, and your male choral students', participation in this study.

If you choose to participate, and allow your male choral students to participate, I will give you a choral director consent form to complete. I will also forward to you multiple copies of up to two different recruitment packets. You will be requested to send a copy of the appropriate hardcopy recruitment packet home with each of your male choral students. One recruitment packet will be for male students who are 17 years old or younger. Another recruitment packet will be for male choral students who are 18 years old or older.

The 17 and under packet will include the following items:

- A recruitment letter for parents and male students describing this research study.
- Two copies of a parental consent form (one for the parents/guardians to keep for their reference and one to sign and return if they choose for their male student to participate in the research study).
- A reference copy of the student assent form. (If a parent/guardian signs and returns the consent form, then their student will be asked to consider signing the student assent form on the day of the study.)

The 18 and older packet will include the following items:

- A recruitment letter for the adult male students describing this research study.
- Two copies of an adult student consent form (one for the student to keep for his reference and one to sign and return if he chooses to participate in the research study).

I would request that you distribute these packets to your male choral students in order for the adult students (18 years old or older) to review or for the parents/guardians of minor students (17 years old or younger) to review. Once the students and/or their parents/guardians have had time to review the packets, I would ask you to collect the signed consent forms from the students. The student assent forms will need to be signed by the younger male students on the day of the study. I will bring additional assent forms with me at that time for this purpose.

Once the consent forms have been signed and returned, I would need you to complete a survey which will ask such things as the number of males and the number of females who sing in the chorus(es) you direct, whether participation in the chorus(es) is voluntary for students, what grade levels are eligible to participate in the chorus(es), etc. This survey will take no longer than 30 minutes to complete. I would also need access to the males, who have returned signed consent forms, for no more than 30 minutes of class time at the school. During this time these students will have an opportunity to ask questions, sign the assent forms as appropriate, and complete the student survey.

You could choose to have a sectional with any remaining students, allow them to read or do homework, or any other activity which you choose.

Approved IRB

7/7/14

Your students will be asked not to write their names on the surveys so that their responses will remain confidential. Once you and the students complete these surveys, your involvement in this research will be finished.

Neither you nor your students will incur any expense as a result of participating in this study, and although neither you nor your students will be compensated for your participation, you will be contributing to the knowledge we as choral conductors have about why males choose to participate in school choruses. This knowledge could potentially be used to recruit additional males into choral ensembles and to make male participation in such ensembles more enjoyable. At the conclusion of this study, I would be glad to share the data results with you.

If you have any questions concerning this research study, please contact me at 919-380-8998 or ch@la-ti-do.net. Thank you for considering participating, and allowing your students to participate, in this important music education research study.

Sincerely,

Chris Haire

Approved IRB

7/7/14

APPENDIX E
PARENTAL RECRUITMENT PACKET

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APPENDIX E.1**PARENTAL RECRUITMENT LETTER**

Dear Parent of a 17 Year-Old or Younger Male Chorus Member,

I am a PhD student at the University of North Carolina at Greensboro, and am focusing my dissertation research on what motivates middle and high school males to sing in school choruses. All the males who sing in this school chorus are invited to participate in this research. Participation will take no more than 30 minutes of your son's time and will occur at school during regular school hours. If you choose for your son to participate in this study, he will be given a printed survey concerning his motivation to sing in this optional school chorus. He will be asked not to write his name on the survey so that his response will remain confidential. Once he completes this survey, his involvement in this research will be finished.

Your son will incur no financial cost as a result of participating in this study, and although he will not be compensated for his participation, he will be contributing to the knowledge choral directors have about male participation in school choruses. This knowledge could potentially lead to choral directors being able to make choral participation more enjoyable for their male singers.

Since your son is younger than 18 years old, in order for him to participate in this project, two forms require a signature:

1. You, as the parent or guardian of a male chorus member, need to sign the attached Parental Consent for their Minor Student to Participate in a Research Study form. Two copies of this form are attached. If you choose to allow your son to participate in this study, please sign one copy of this form, and ask your son to return this signed form to his chorus teacher. I will collect the form from the teacher. The second copy of this form is attached for you to keep as a reference copy.
2. On the day the study is conducted at the school, your son will need to sign the Minor Student Assent to Participate in a Research Study form. I will be available at that time to answer any questions he may have. A copy of this form is attached for your review.

If you, or your son, choose for your son not to participate in this study, his chorus teacher may conduct a sectional with him and any other chorus students who don't participate in this research study. Alternately, his teacher may instruct him to read, do homework, or engage in some other task of the chorus teacher's choosing.

If you have any questions concerning this research study, please contact me at 919-380-8998 or ch@la-ti-do.net. Thank you for considering allowing your son to participate in this important music education research study.

Sincerely,

Approved IRB

7/7/14

Chris Haire

APPENDIX E.2
PARENTAL CONSENT FORM

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
PARENTAL CONSENT FOR THEIR MINOR STUDENT
TO PARTICIPATE IN A RESEARCH STUDY

Project Title: Motivation for Males to Participate in Middle and High School Choruses: A Descriptive Study

Project Director: Dr. David Teachout/Chris Haire

Participant's Name: (Please enter your student's name here): _____

What are some general things you should know about research studies?

Your son is being asked to take part in a research study. Your son's participation in the study is voluntary. You may choose for him not to join, or you may withdraw your consent for him to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to your son for being in the research study. There also may be risks to being in research studies. If you choose for your son not to be in the study or you choose for your son to leave the study before it is done, it will not affect your relationship or your son's relationship with the researcher or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about your son being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

The objective of this research project is to investigate what motivates males to participate in elective choral ensembles. Because previous research has indicated that males generally participate in choral ensembles in smaller numbers than do females, the researcher (project director listed above), hopes to determine why males join and continue participating in school choruses. Such knowledge may assist choral directors with recruitment and retention of male singers. Your son's participation in this study is voluntary. If you consent to his participation, and he assents to participate, he will be asked to complete a short written survey about his motivation for singing in chorus. This will be the extent of his participation in this study.

Why are you asking my son?

Your son is being asked to participate in this study because he is a male who has chosen to sing in an elective middle school or high school chorus.

UNCG IRB
Approved Consent Form
Valid from:

7/7/14 to 7/6/15

What will you ask my son to do if I agree to let him be in the study?

Your son will be given a short written survey to complete. The survey will address his participation in chorus. Any student disabilities will be accommodated if possible. For example, the survey can be read to any visually disabled student. The entire procedure, including instruction and completion of the written survey should take no more than 30 minutes.

What are the risks to my son?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants.

If you choose for your son to participate in this study, he will probably be completing the hardcopy survey at the same time that others males from his chorus are also completing the survey. However, if your son misses any instructional concepts by participating in this study, his instructor will review these missed concepts with him during a future rehearsal session. Also, while completing the survey, he may choose not to answer any question he does not feel comfortable answering.

If you have questions, want more information, or have suggestions, please contact Chris Haire at (919) 380-8998 or ch@la-ti-do.net or contact Dr. David Teachout at (336) 334-4759 or djteacho@uncg.edu. If you have any concerns about your rights, how you are being treated, concerns or complaints about this project, or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351.

Are there any benefits to society as a result of my son taking part in this research?

This research seeks to determine what motivates middle and high school males to participate in school choruses. Previous research has indicated that males tend to participate in choruses in smaller numbers than females. Knowing what motivates males to join and to continue participating in school choruses may assist choral directors in recruiting additional male singers and in retaining current male singers in such ensembles. It could also help choral directors make their ensembles more inviting and enjoyable for males. Having additional males in middle and high school choruses may increase chorus sizes, aid in balancing choral parts, and give additional males the opportunity to enrich their lives through music.

Are there any benefits to *my son* as a result of participation in this research study?

There are no direct benefits to student participants in this study.

Will my son get paid for being in the study? Will it cost me anything for my son to be in this study?

There are no costs to you or payments to you or your son as a result of participation in this study.

How will my son's information be kept confidential?

The data collection procedure will be confidential. Study participants will not put their names on their written surveys, and their names will therefore not be associated with their responses. The completed surveys will be stored in a locked filing cabinet, and all information obtained in this study is strictly confidential unless disclosure is required by law.

UNCG IRB
Approved Consent Form
Valid from:

7/7/14 to 7/6/15

What if my son wants to leave the study or I want him to leave the study?

You have the right to refuse to allow your son to participate or to withdraw him at any time, without penalty. If your son does withdraw, it will not affect you or him in any way. If you or he chooses to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state.

Even though it is very unlikely to happen with a hardcopy survey concerning chorus participation, federal guidelines require that you be informed that the investigators have the right to stop participation at any time. This could be because your son has had an unexpected reaction, or has failed to follow instructions, or because the entire study has been stopped.

Voluntary Consent by Participant:

By signing this consent form, you are agreeing that you have read it, or it has been read to you, you fully understand the contents of this document and consent to your son taking part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are the legal parent or guardian of the minor student who wishes to participate in this study described to you by Chris Haire.

Participant's Parent's/Legal Guardian's Signature

Date

UNCG IRB
Approved Consent Form
Valid from:

7/7/14 to 7/6/15

APPENDIX E.3

MINOR STUDENT ASSENT FORM (REFERENCE COPY)

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO MINOR STUDENT ASSENT TO PARTICIPATE IN A RESEARCH STUDY	
Study Title:	Motivation for Males to Participate in Middle and High School Chorus: A Descriptive Study
My name is:	Chris Haire.
What is this about?	As a part of a research study, I would like to talk to you about your reasons for singing in your school's chorus. I want to learn why you initially choose to sing in chorus, why you would choose to sing in chorus again in the future, and if you plan to sing in chorus in the future.
Did my parents say it was ok?	Your parent(s) said it was ok for you to be in this study and have signed a form like this one.
Why me?	We would like you to take part because you are a male who has chosen to participate in an optional school chorus.
What if I want to stop?	You do not have to say "yes", if you do not want to take part. We will not punish you if you say "no". Even if you say "yes" now and change your mind after you start completing the survey, you can stop and no one will be mad at you.
What will I have to do?	Taking part in this study will involve you answering a short written survey. The entire process should not take more than 30 minutes.
Will anything bad happen to me?	There is nothing bad that will happen to you as a result of participating in this study. In addition, you may choose not to answer any survey question you feel uncomfortable answering.
Will anything good happen to me?	By taking part in this study you will help choral directors better understand how to make chorus participation more inviting and appealing to guys.
Do I get anything for being in this study?	You will not receive anything for participating in this study.
What if I have questions?	You are free to ask questions at any time.
If you understand this study and want to be in it, please write your name below.	

Printed Name of Student	
_____	_____
Signature of Student	Date
13-0374	Page 1 of 1

APPENDIX F

ADULT STUDENT RECRUITMENT PACKET

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APPENDIX F.1**ADULT STUDENT RECRUITMENT LETTER**

Dear 18 Year-Old or Older Male Chorus Member,

I am a PhD student at the University of North Carolina at Greensboro, and am focusing my dissertation research on what motivates middle and high school males to sing in school choruses. All the males who sing in this school chorus are invited to participate in this research. Participation will take no more than 30 minutes of your time and will occur at school during regular school hours. If you choose to participate in this study, you will be given a printed survey concerning your motivation to sing in this optional school chorus. You will be asked not to write your name on the survey so that your response will remain confidential. Once you complete this survey, your involvement in this research will be finished.

You will incur no financial cost as a result of participating in this study, and although you will not be compensated for your participation, you will be contributing to the knowledge choral directors have about male participation in school choruses. This knowledge could potentially lead to choral directors being able to make choral participation more enjoyable for their male singers.

In order to participate in this project, you need to sign the attached Consent for Adult Student to Act as a Human Participant form. After signing this form, please return it to your chorus teacher. I will collect the forms from your teacher.

By federal guidelines for conducting research, you are considered an adult and can consent to participate in a research study. However, I encourage you to review both this letter and the consent form with your parent.

If you choose not to participate in this study, your chorus teacher may conduct a sectional with you and any other chorus students who don't participate in this research study. Alternately, your teacher may instruct you to read, do homework, or engage in some other task of your chorus teacher's choosing.

If you have any questions concerning this research study, please contact me at 919-380-8998 or ch@la-ti-do.net. Thank you for considering participating in this important music education research study.

Sincerely,

Chris Haire

Approved IRB

7/7/14

APPENDIX F.2

ADULT STUDENT CONSENT FORM

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO ADULT STUDENT CONSENT TO PARTICIPATE IN A RESEARCH STUDY
<p>Project Title: Motivation for Males to Participate in Middle and High School Choruses: A Descriptive Study</p> <p>Project Director: Dr. David Teachout/Chris Haire</p> <p>Participant's Name: (18 year old or older student, please enter your name below):</p> <hr style="border: 0.5px solid black;"/>
<p>What are some general things you should know about research studies? You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to join, or you may withdraw your consent to be in the study, for any reason, without penalty.</p> <p>Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the University of North Carolina at Greensboro. Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study.</p> <p>You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.</p>
<p>What is the study about? The objective of this research project is to investigate what motivates males to participate in elective school choruses. Because previous research has indicated that males generally participate in choral ensembles in smaller numbers than do females, the researcher (project director listed above), hopes to determine why males join and why they continue participating in school choruses. Such knowledge may assist choral directors with recruitment and retention of male singers. Your participation in this study is voluntary. If you consent to participate, you will be asked to complete a short written survey about your motivation for singing in chorus. This will be the extent of your participation in this study.</p>
<p>Why are you asking me? You are being asked to participate in this study because you are a male who has chosen to sing in an elective middle school or high school chorus.</p>
<p>What will you ask me to do if I agree to be in the study? You will be given a short hardcopy survey to complete. The survey will address your participation in chorus. Any student disabilities will be accommodated if possible. For example,</p>
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the survey can be read to any visually disabled student. The entire procedure, including instruction and completion of the hardcopy survey should take no more than 30 minutes.

What are the risks to me?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants.

If you choose to participate in this study, you will probably be completing the hardcopy survey at the same time that others males from your chorus are also completing the survey. However, if you miss any instructional concepts by participating in this study, your instructor will review these missed concepts with you during a future rehearsal session. Also, while completing the survey, you may choose not to answer any question you do not feel comfortable answering.

If you have questions, want more information, or have suggestions, please contact Chris Haire at (919) 380-8998 or ch@la-ti-do.net or contact Dr. David Teachout at (336) 334-4759 or dteacho@uncg.edu. If you have any concerns about your rights, how you are being treated, concerns or complaints about this project, or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351.

Are there any benefits to society as a result of me taking part in this research?

This research seeks to determine what motivates middle and high school males to participate in school choruses. Previous research has indicated that males tend to participate in choral ensembles in smaller numbers than females. Knowing what motivates males to join and to continue participating in choruses may assist choral directors in recruiting additional male singers and in retaining current male singers in such ensembles. It could also help choral directors make their ensembles more inviting and enjoyable for males. Having additional males in middle and high school choruses may increase chorus sizes, aid in balancing choral parts, and give additional males the opportunity in enrich their lives through music.

Are there any benefits to *me* for taking part in this research study?

There are no direct benefits to student participants in this study.

Will I get paid for being in the study? Will it cost me anything?

There are no costs to you or payments to you as a result of participation in this study.

How will you keep my information confidential?

The data collection procedure will be confidential. Study participants will not put their names on their written surveys and their names will therefore not be associated with their responses. Completed surveys will be stored in a locked filing cabinet and all information obtained in this study is strictly confidential unless disclosure is required by law.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state.

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Valid from:

7/7/14 to 7/6/15

Even though it is very unlikely to happen with a hardcopy survey concerning chorus participation, federal guidelines require that you be informed that the investigators have the right to stop participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

Voluntary Consent by Participant:

By signing this consent form you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consenting to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate in this study described to you by Chris Haire.

Signature of Adult Student: _____ Date: _____

UNCG IRB
Approved Consent Form
Valid from:

7/7/14 to 7/6/15

APPENDIX G

CHORAL DIRECTOR CONSENT FORM

<p>UNIVERSITY OF NORTH CAROLINA AT GREENSBORO CHORAL DIRECTOR CONSENT TO PARTICIPATE IN A RESEARCH STUDY</p> <p>Project Title: Motivation for Males to Participate in Middle and High School Choruses: A Descriptive Study</p> <p>Project Director: Dr. David Teachout/Chris Haire</p> <p>Participant's Name: (Choral Director, please enter your name here): _____</p> <p>What are some general things you should know about research studies? You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to join, or you may withdraw your consent to be in the study, for any reason, without penalty.</p> <p>Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the University of North Carolina at Greensboro. Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study.</p> <p>You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.</p> <p>What is the study about? The objective of this research project is to investigate what motivates males to participate in elective choral ensembles. Because previous research has indicated that males generally participate in choral ensembles in smaller numbers than do females, the researcher (project director listed above), hopes to determine why males join and continue participating in school choruses. Such knowledge may assist choral directors with recruitment and retention of male singers. The male student participants, after they and/or their parents/guardians have given the appropriate consent/assent, will be asked to complete a hardcopy survey. That is the extent of their participation in this study.</p> <p>In addition to determining what motivates males to participate in elective school choruses, the project director hopes to document the numbers of males and females in middle and high school choruses. This is the data the project director hopes to gather from you via a different hardcopy survey.</p> <p>Why are you asking me? You are being asked to participate in this study because you direct an elective middle and/or high school chorus which includes male singers.</p> <div style="text-align: right; padding-right: 50px;"> <p>UNCG IRB Approved Consent Form Valid from: 7/7/14 to 7/6/15</p> </div>

What will you ask me to do if I agree to be in the study?

The project director will ask you to complete a short hardcopy survey that should take no more than 30 minutes to complete. This survey will ask you to document the number of males and the number of females who sing in the middle and/or high school chorus(es) you direct. It will also ask you to answer a few additional questions about the ensemble (e.g., is this chorus an elective class/activity? what grade levels are eligible to participate in the chorus, etc.). The project director will also ask you to invite your male singers to participate in this study and pass on to them a recruitment letter. This recruitment letter describes this study and requests the male student's participation. Attached to the recruitment letter will be copies of applicable consent and/or assent forms which will either need to be signed and returned, or signed at the time the student surveys are completed. You will also be asked to collect the signed consent forms and allow Chris Haire up to 30 minutes of class time to conduct the research with your male singers who have chosen to participate in this project.

Questions about this research project can be answered by contacting Chris Haire at 919-380-8998 or via email at ch@la-ti-do.net.

What are the risks to me?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants.

If you have questions, want more information, or have suggestions, please contact Chris Haire at (919) 380-8998 or ch@la-ti-do.net or contact Dr. David Teachout at (336) 334-4759 or djteacho@uncg.edu. If you have any concerns about your rights, how you are being treated, concerns or complaints about this project, or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351.

Are there any benefits to society as a result of me taking part in this research?

This research seeks to determine what motivates middle and high school males to join, and to continue participating in school choruses. Previous research has indicated that males tend to participate in choral ensembles in smaller numbers than females. Knowing what motivates males to join and to continue participating in school choruses may assist choral directors in recruiting additional male singers and in retaining current male singers in such ensembles. It could also help choral directors make their ensembles more inviting and enjoyable for males. Having additional males in middle and high school choruses may increase chorus sizes, aid in balancing choral parts, and give additional males the opportunity to enrich their lives through music.

Are there any benefits to me for taking part in this research study?

Once data from the male singers' responses are cumulated, the project director will be glad to share this anonymous data with you. This knowledge may be helpful to you in recruiting additional male singers and in retaining current male singers in your ensemble. It may also help you make your choral ensemble more inviting and enjoyable for males.

Will I get paid for being in the study? Will it cost me anything?

There are no costs to you nor payments made to you for participating in this study.

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How will you keep my information confidential?

The data collection procedure will be confidential. Choral director participants will not put their names on their hardcopy surveys and their names will therefore not be associated with their responses. Completed surveys will be stored in a locked filing cabinet, and all information obtained in this study is strictly confidential unless disclosure is required by law.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state.

Even though it is very unlikely to happen with a hardcopy survey concerning chorus participation, federal guidelines require that you be informed that the investigators have the right to stop participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By signing this consent form you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consenting to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate in this study described to you by Chris Haire.

Signature of Choral Director: _____ Date: _____

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APPENDIX H

MINOR STUDENT ASSENT FORM

<p>UNIVERSITY OF NORTH CAROLINA AT GREENSBORO MINOR STUDENT ASSENT TO PARTICIPATE IN A RESEARCH STUDY</p>	
Study Title:	Motivation for Males to Participate in Middle and High School Choruses: A Descriptive Study
My name is:	Chris Haire.
What is this about?	As a part of a research study, I would like to talk to you about your reasons for singing in your school's chorus. I want to learn why you initially choose to sing in chorus, why you would choose to sing in chorus again in the future, and if you plan to sing in chorus in the future.
Did my parents say it was ok?	Your parent(s) said it was ok for you to be in this study and have signed a form like this one.
Why me?	We would like you to take part because you are a male who has chosen to participate in an optional school chorus.
What if I want to stop?	You do not have to say "yes", if you do not want to take part. We will not punish you if you say "no". Even if you say "yes" now and change your mind after you start completing the survey, you can stop and no one will be mad at you.
What will I have to do?	Taking part in this study will involve you answering a short written survey. The entire process should not take more than 30 minutes.
Will anything bad happen to me?	There is nothing bad that will happen to you as a result of participating in this study. In addition, you may choose not to answer any survey question you feel uncomfortable answering.
Will anything good happen to me?	By taking part in this study you will help choral directors better understand how to make chorus participation more inviting and appealing to guys.
Do I get anything for being in this study?	You will not receive anything for participating in this study.
What if I have questions?	You are free to ask questions at any time.
If you understand this study and want to be in it, please write your name below.	

Printed Name of Student	

Signature of Student	Date
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