ATTRIBUTIONAL BELIEFS IN MUSIC LEARNING: 'TALENT' OR HARD WORK?

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ABSTRACT

Attributional beliefs of three distinct groups regarding the sources of musical skill—hard work or innate/internal--were explored through two separate studies. Subjects for the pilot study consisted of thirty-seven private university music majors compared with adult chancel choir members, while the thesis study compared the responses of thirty-four public university music majors with chancel choir members. All subjects responded to researcher-developed attributive questionnaires. The pilot study indicated that a majority had the same notion, that musical skill comes from hard work and innate ability, with no statistical difference between private university music majors and the adult non-majors, $p < .9999$, on the Freeman-Halton extension of Fisher's. Differences were found in the thesis study, with the majority of public university music majors favoring hard work and the adult non-majors equally divided between the two choices, resulting in a statistically significant difference at $p < .0016$ on Freeman-Halton extension of Fisher's.

DEDICATION

I would like to dedicate this work to my family in appreciation of their support: my parents, Wendell and Yvonne Harris, my sister, Sheryle Smith, brother-in-law, Andy Smith, niece, Tiffany Smith, and cousin, Carrie Lounsberry Brock.

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CHAPTER I

INTRODUCTION

Musical expertise probably is not the result of some magical "talent" or innate ability but rather is an acquired competency requiring many years of internal motivation and self-directed practice to reach a master's status (J. Protzko, 2010). Attributional beliefs with respect to a personal theory behind knowledge acquisition have become a growing educational concern. Beliefs shape attitudes that in turn affect actions and educational outcomes (Glenn, 2010).

When discussing the field of music, importance lies in the fact that the students, and the general non-musically trained public, must be aware of the complexities concerning the acquisition of musical skills. Students should not be preoccupied with whether or not they have a speculative talent, but whether they are using their practice time attentively and effectively. Whether someone believes in an innate talent or not, "in the absence of the training necessary to reveal it and the effort necessary to sustain it, talent, if it exist at all, vanishes" (L. Helding, 2011).

Problem

This study investigated whether university music majors attribute success in music to the level of work expended or to some fixed, internal ability ("talent") as compared to adult non-music majors. This was something that was in need of exploration, because beliefs drive actions, and the hard work of music practice is a strong requisite for professional achievement among

musicians. The belief in innate ability or "talent" among music students, as opposed to simple attribution of success to hard work, has serious consequences, as such a belief has the effect of suppressing professional goals; particularly if students do not believe they possess the requisite "talent" (L. Helding, 2011).

Purpose

The purpose of this study was to examine whether college music majors, as compared to adult non-music majors, attribute success to an innate ability or hard work.

Hypothesis

It is hypothesized that music majors attribute success in music to the level of work expended, not to "talent" or some fixed, internal ability as compared to adult non-music majors.

Statistical Hypothesis

There is no significant difference between the attributions of success with respect to university/college music majors as compared to adult non-music majors.

CHAPTER II

LITERATURE REVIEW

Most research studies on attribution with respect to music emphasize the importance of attributing success in music to hard work. Motivation is essential for the acquisition of musical skills. Weiner's (1979) work on the theory of motivation revealed three attributes of success and failure: "stability, locus, and control." (p. 18). Stability attributions do not change, the locus is an internal attribution such as ability or effort, and control indicates that the subject has control over the cause. Attributes assist in the success and failure in many tasks, and they most certainly will affect future decisions concerning a student's academic pursuits (p. 4). A student's ability to achieve is also affected by many other influences such as the student's surroundings and teacher effectiveness in the classroom (p. 18). Many people have attributed talent to a type of innate ability **(**the locus) and many continue to do so (p. 10).

A study by Asmus (1986b) presented an open-ended questionnaire to 589 elementary, middle, and high school music students. The students were from lower class, middle class, and upper class backgrounds. They were instructed to write five rationales each for student success and failure in music (p. 266). There were four categories used in the study that students attributed success and failure: "ability, task difficulty, luck, and effort." The subjects produced 5,092 responses for student success and failure from the following four categories: internal-stable, internal-unstable, external-stable, and external-unstable (p. 267). The results showed that the

overwhelming majority of the study subjects believed that success and failure were internal. Effort was listed as an internal-unstable cause, and ability was listed as an internal-stable cause. The results showed that the subjects attributed effort with a high percentage of reason for success and failure in music, but ability received a bit higher response (p. 268).

Asmus's (1986a) study examined the relationship between motivation and the attributions of success and failure among university students. It was assumed that how a person attributed success and failure affected future undertakings and outcomes. There were 143 college music students (music education and music therapy) used as subjects in this study (p. 71). The students were asked to give computer-based answers covering "attribution perceptions, success tendency, and background information" on an 80 item response. It was found that both types of music students presented different attributions on the "reasons for success and failure to others than when they assigned reasons for success and failure to themselves" (p. 81). The study also noted that musicians usually prescribed internal-unstable attributions to other groups' circumstances while they usually advocated external-stable attributions for themselves. "An important hypothesis of this study, that the way success or failure is attributed to self influences how success or failure is attributed to others, was not supported" (p. 83).

Asmus (1985) examined the motivations of music students and their attributions of success and failure in music appreciation class (p. 1). The study was comprised of 118 elementary music students in the sixth grade (p. 4). The students were given a series of statements, during music studies, and were asked to write an attributional response. The responses were grouped under: "ability, task, difficulty, effort, and luck" (p. 5). As a result of this questionnaire most students chose internal attributions for success and failure in their class. (p. 6) The students largely attributed their overall success to "effort" (p. 7). "Results from this

study suggest that teachers can influence students' perceived causes of success and failure in music and thus the students' motivational characteristics" (p. 10).

Legette (1998) studied the attribution of success and failure in 1,114 students in public school music classes from two school systems in Georgia, grades K-12 (pp. 102, 105). The subjects were administered an attributional test from Asmus's work consisting of seven questions. They were instructed to circle a number from 1 through 5 on the importance of each variable. The variables were: "effort, background, class environment, musical ability, and affect for music" (p. 106). Overall, the majority of the subjects chose "musical ability and effort" as being the greatest significances in their attribution of their musical achievement (p. 109).

Legette's (2003) study showed that a variety of students in a class would render different motivations for success and failure in music (p. 44). Subjects, totaling 301, from two schools in grades three through five, were administered an Asmus Music Attribution Orientation Scale that consisted of 35 items. The items utilized a five-point scale from which the subjects could choose the level of attribution. The results showed that both schools mostly attributed success and failure to both ability and effort. (p. 46).

A study by Vispoel and Austin (1995) examined the attributions of success and failure of junior high school students in general music (p. 377). The study consisted of two questionnaires (the first focused on success and the second concentrated on failure), with 105 items each, administered to 211 student subjects from Iowa. Of the items covered, 96 were about success and failure (p. 384). The study involved the following attributional questions: "First, to what extent are students' causal beliefs about an achievement event affected by the outcome, by the subject area in which it occurs, and by the type of activity involved? Second, what is the relationship between attributional response and students' reported grades? Third, do the bipolar causal

dimensions of locus, stability, and controllability accurately portray how students conceptualize the causes of real-life successes and failures?" (p. 399) The attribution scale consisted of the following: ability, effort, strategy, interest, task difficulty, luck, family influence, and teacher influence (p. 387). Outcomes differed from subject to subject. Most students attributed success to parental and teacher involvement, whereas, other students identified failure as stemming from a lack of interest (p. 399-400). With respect to the questions concerning vocalizing in general music class, the subjects mostly attributed success to an innate ability rather than effort (pp. 401-402).

Painsi and Parncutt (2004) performed a study on the attributions of musical success and failure. The study comprised thirty-six educators, ninety-seven parents, and ninety-two students from fourteen schools that participated in music studies. The test subjects were presented with a thirty-five-item attribution survey that was answered using a five-point Likert scale (p. 1). The results of the study demonstrated that the students largely attributed success to effort and ability, and they largely attributed failure to the difficulty of the task, effort, and luck. The students stated that their success was possibly due to their teachers help more than parent backing. When questioned about failure, the same students held themselves accountable instead of assigning blame to the adult influences in their lives. It is important that teachers recognize the differences between their own attributions and student attributions and "help their students to understand this simple principle, both through the things that they say during lessons and their own example" (pp. 2-3).

Schmidt (1995) completed a study using 120 non-auditioned middle and high school chorus students attending a university music camp. The subjects came from ten states and varying social backgrounds. Each subject was given an open-response survey (similar to

Asmus's 1986 questionnaire) concerning the attribution of vocal music success and failure. The given responses for the survey were internal and external. The internal response represented innate ability and effort, and the external response represented instruction and the difficulty of the job (p. 317). Of the students surveyed, 61% alleged success and failure in vocal music as internal (p. 319).

Chandler, Chiarella, and Auria (1988) studied the "motivation of band members" and how they attributed musical success (p. 249). The study was conducted with 234 band members from three bands in grades 9-12. The subjects were given a questionnaire consisting of sixteen questions, seven of which covered musical attribution (p. 251). The results showed that the subjects who performed successfully on their chosen instruments stated that they would be willing to perform on those particular instruments in future performances. Those subjects indicated that they attributed their successful performances to an innate ability (p. 252).

Austin and Vispoel's (1998) study examined adolescent student attributions of the success and failure in music (p. 26). The study consisted of 153 students in the seventh grade in their second or third year of private music lessons (p. 32). The subjects were administered an attributional questionnaire that identified students' attributional beliefs and were also given a standardized music test. The attributions were measured using a Likert scale and this was related to a standardized music test (p. 32-34). The results indicated that higher musical achieving students attributed success to ability and the backing of family and friends. A strong correlation between "self-concept and music achievement test results" was observed; also, a sense of failure was found to be a major factor in the students' continued pursuit in music study (p. 40, 42).

Vispoel and Austin's (1993) study examined motivation and attribution. They observed student reactions to non-achievement in relation to music appreciation (p. 111). A thirty-five-

point questionnaire was given to 120 middle school students from similar backgrounds at a school in Iowa. The subjects were presented with several situations and were instructed to attribute failure to one of the following three ascriptions: "ability, effort, (and) strategy" (p. 115). The results of the study supported previous attribution studies. The subjects did not attribute failure to an innate ability, but rather to a lack of effort and inadequate study habits (p. 122). It was noted, "teachers will be more successful in enhancing student motivation and persistence if they abandon the notion that ability is stable and uncontrollable." Teachers should help students develop the perception that ability should only be scrutinized as a tool to build upon study and hard work (p. 124).

Evans, Pendarvis, and Bickel (2000) surveyed exceptional young musicians, their parents, and private music teachers about whether they attributed musical talent to innate or acquired conditions (p. 85). Their findings indicated that the students and their teachers believed that musical skills were innate, but their parents attributed it to work and practice (p. 87). The students felt that their parents did not encourage their pursuit of music. In contrast, parents expressed quite the opposite opinion by indicating that they did encourage their child's musical studies (p. 85).

In an earlier study, Legette (1993) examined how music majors and non-music majors attributed success and failure in their study of music. "The causal attributions of ability and effort are considered to be internal-stable and internal-unstable respectively, while task difficulty is considered external-stable and luck, external-unstable" (p. 3). The study involved 105 college guitar students, sixty-two of which were not music majors, and forty-three were music majors. (p. 4) The students were presented with a thirty-five-item Asmus test. The results of the test were

consistent with Asmus's original study by showing that both groups mostly attributed success and failure in music studies to "effort, affect for music, and musical ability" (p. 5).

Legette (2002) performed a study on how undergraduate music teachers and regular education teachers attribute student success and failure in music education (p. 1). The study was comprised of 258 music education majors and 137 regular education majors (p. 3). The students were administered the thirty-five-point Asmus attribution test with the following five attributes: "effort, background, classroom environment, musical ability, and affect for music." The results of the study showed that both music and regular education majors mostly attributed success and failure in music to effort and ability (pp. 4-5).

Carey's (2005) thesis observed the gender differences in the attributions of effort and talent in music (p. 2). Carey studied 167 college students that were enrolled in a psychology class. There were seventy-six female subjects and ninety-one male subjects. All of the subjects were given a set of scenarios which they rated with a nine-point Likert scale (pp. 7-8). The results seem to indicate that the subjects did not consider music to be either a feminine nor masculine discipline (p. 9). It was found that for both females and males there was no significant difference between effort and ability when attributing success in music, and both groups largely attributed failure in music to ability (pp. 12, 15).

Ross, Bierbrauer, and Polly's (1974) study observed the attributions of teachers who are successful, and unsuccessful in the classroom (p. 609). The experiment included sixty-four teachers and education majors, and one sixth grade student (p. 611). The educators were provided with a survey and based upon their responses, some were then given a list of "25 commonly misspelled words." The teachers were then allotted a certain amount of time in order to teach their student these words, using any means necessary. The educators were given an

attribution assessment that utilized a Likert scale (pp. 612-613). The results showed that the "instructors tended to rate their own efforts and abilities as less important than those of the student in accounting for success and as more important than student factors in accounting for failure" (p. 616).

Prawat, Byers, and Anderson (1983) examined a group of teachers' views on success and failure of their students in the classroom (p. 137). "The present study attempts to better understand *why* teachers place such a premium on student effort, especially in the absence of high quality" (p. 138). The study consisted of fifty-eight teachers that taught grades K-6. Every teacher was given sixteen scenarios and was instructed give their response using a five-point Likert scale concerning their students' success and failure on tests (pg. 139). Overall, the students mostly attributed failure to a lack of ability, while teachers constantly conveyed the importance of effort over ability (p. 150). The teachers reported that they receive more excitement when a student with low ability applies effort and progresses, whereas they felt disgust when a student with high ability applies little effort and fails (p. 151).

Frieze and Snyder (1980) performed a study with students from three elementary grades on their attributions of success and failure in academia. It was determined that how a person attributes success and failure in a task is important because it will affect their reaction to similar future tasks (p. 186). The study consisted of 144 elementary students from a private Catholic school with an equal number of students in each of the three grades. The study was conducted by four college students who observed each class of subjects using the Elig-Frieze Coding Scheme during the interviews (p. 188). The following four situations were noted during the study: academic exam, football, frog catching, and art. All student interviews were recorded individually, and began with a shared introduction that was read at the beginning of the interview

(p. 189). The study showed a significant difference in the students' attributions of success and failure. It was noted that the students who had persistent difficulty in schoolwork felt as if they had no control over outcomes. The study uncovered the following two important findings: "major causes used by most children to explain testing outcomes have an internal locus of cause" and "data indicate that the child's causal belief structure is situationally dependent" (pp. 193-194). The students' age has considerable effect on their attributions of success and failure (p. 195). This is a classic study of the problem.

Chapman and Lawes's (1984) study examined the attributions of success and failure in student achievement (p. 177). The study was administered using 400 New Zealand high school students and consisted of thirty-three items that were organized into the following two groups: causality and stability (p. 180). "The results of this study show that the locus (location; internal/external) was confounded with stability (something that cannot be changed), and the external stable causes are implicated in the reduction of attributions amongst those who failed the exam" (p. 185). It was noted that causal attributions might not be so clear-cut as previously thought (p. 186).

Raviv, et al. (1980) observed the attributions of achievement in a core academic area by examining three groups of students who were arranged within certain ethnic backgrounds and by socioeconomic levels. "The types of causes individuals utilize to explain their successes or failures are important determinants of their achievement-related behavior" (p. 137). The study was conducted using 134 students in upper elementary grades. A survey was given to the students following the return of their core academic scores (p. 139). The test subjects were instructed to use a Likert scale ranging from one to seven in order to draw a correlation of their scores to the following nine causes of achievement: "ability in mathematics, interest in

mathematics, difficulty of the material, effort exerted during the test, difficulty of the test, preparation for the test at home, teachers' explanation of the material, learning conditions at home and luck." (p. 140). The attribution results for the three groups proved the "advantaged students" perceived "success to internal-stable causes and failure to internal-unstable causes," the "disadvantaged students" perceived "failure to internal-stable causes," but the "integrated group" recognized "no clear preferences" for any attribution (p. 144).

Bar-Tal, Goldberg, and Knaani (1984) performed a study that consisted of ninety-two middle school students from schools in two opposite socioeconomic neighborhoods. The students were given a survey that weighed multiple reasons for achievement (pp. 53, 56). No real variation existed between these two groups of students, as shown by the results of this study. "Pupils attributed their success mostly to internal (dispositional), medium stable (unchangeable), and controllable causes" (p. 60).

Beckman's (1976) study compared teacher and parental attributions on the academic success of children. Beckman stated, "If, indeed, it is true that teachers' perceptions regarding a child's attributes can affect that child's future performance, then teachers' perceptions of the causal source of performance are themselves of great interest" (p. 212). The study was conducted with nine elementary school teachers and forty-nine parents with most of the families in the lower-socioeconomic bracket. The parents were chosen after the teachers divided their classes into the following three groups: "average, above average and below average achievers" (p. 213). The parents and teachers were given a questionnaire that included such items as "child's ability" and parental influence. The results showed that of the questionnaires completed, mothers were the largest responders, twenty percent of married couples completed the questionnaire together, and zero percent of fathers completed the questionnaire on their own (p. 214). The results

indicated that there were no significant difference in the attributions of student success between teachers and parents, except for the question concerning the teacher's role in learning. Parents felt that the teacher's role was very important for student success, while teachers presented the opposite opinion; thus supporting the hypothesis (p. 217).

The McFarland and Ross (1982) study observed the affects on outcome and attribution on achievement (pp. 937-938). The study consisted of fifty-three undergraduate students, all of whom were female. The subjects were presented with a test on social accuracy followed by a questionnaire. The subjects were then instructed to attribute success or failure to either "ease of the task (difficulty of the task) or ability (lack of ability)" (p. 939). The results indicated "that subjects attributed more responsibility to task factors after failure" and that "subjects typically take more personal responsibility for success than failures." (p. 941) Overall, the majority of subjects that felt success in the study mostly attributed their success to innate abilities (pp. 945-946).

Medway and Lowe's (1980) study examined attributions of success and failure exhibited by subjects in an academic tutoring program (p. 377). Forty-two volunteer student tutors in middle school and forty-two tutees in elementary grades were chosen for the study. The tutees were provided a questionnaire concerning their attribution of success or failure in the program using a five-point Likert scale. (pp. 378-379). The results for the first study showed that the tutors mostly chose effort for success, and the tutees mostly chose ability for success. A second study consisted of nineteen tutors and nineteen tutees, from upper and middle elementary grades. The students were furnished an eight-item attribution questionnaire (p. 381). The results indicated that the tutees mostly chose effort over ability and the tutors chose the opposite.

Overall, the students in both studies recognized "tutee effort as the primary cause and tutor effort as the secondary cause of tutorial outcomes" (p. 384).

Weiner, Russell, and Lerman (1979) explored two studies to observe success and failure attribution and the relationship between emotion and cognition. It was noted "that a variety of cognitions, particularly causal attributions, influence emotional reactions in achievement-related contexts" (p. 1211). The study was comprised of seventy-nine psychology college students that were presented with an attribution questionnaire. The subjects were instructed to choose one of the following attributions: "ability, unstable effort, stable effort, personality, other people, and luck." The results indicated that the subjects more readily chose both ability and effort (p. 1213). The second study consisted of forty-eight college students that were presented with twelve scenarios and were answered with a six-point Likert scale (p. 1218). It was found that the subjects largely chose internal (dispositional) attributions for success (p. 1220).

Russell, et al. (1987) conducted a study that observed how people attribute success and failure, because it has a vast bearing on how they will view future successes and failures (p. 1248). Of 161 college psychology students who participated in the study, ninety were women and the remaining seventy-one were men. The experiment was administered before a midterm exam, and the subjects were instructed to project their success on the mid-term. The second section of the experiment was administered a week later following the posting of exam grades, and it was in the form of a questionnaire using the Likert scale to assess attributions (p. 1249). "The results of this study provide support for directly assessing how the attributor perceives the cause he or she has stated for an achievement outcome as a strategy for assessing causal dimensions" (p. 1255).

Elig and Frieze's (1979) study explored attributions for success and failure and how they could be accurately measured (p. 621). The study consisted of 252 college students that were enrolled in psychology classes (p. 624). The experiment consisted of fifteen anagrams that were to be answered within thirty seconds. The subjects were given several open-ended response questions. A total of 126 subjects were provided with easier anagrams to solve and the other half of the students questioned were given more difficult ones, in order to ensure a successful group and an unsuccessful group in which to compare. Percentages were given to the subjects that stated whether the students were considered bright, successful, or failures. The experiment then instructed the subjects to choose their success or failure using a Likert scale (p. 625). The results for causal attribution measurement showed that "scale measures have moderately good inter-method correlations with percentage measures, do not force inter-correlations among attributions, and have good face validity" (p. 633).

McMahan (1973) examined the attributions for success and failure with respect to ability, effort, task difficulty, and luck. The study consisted of 109 sixth graders, eighty-one tenth graders, and 146 college students. Each subject was provided with a group of anagrams to solve, all of which consisted of five letters followed by several questions concerning attributions of success and failure. Using a ten-point Likert scale, the subjects were asked to rate their feelings of success on the impending task (p. 110). "Subjects were far more likely to say that they had succeeded because the task was easy than to say that they had failed because the task was hard" (p. 111). The results of this study showed that the majority of subjects expected to be successful with the task, and thus attributed success to effort and luck, rather than innate abilities (p. 108). It was also noted "attributions to fixed factors are positively related to subsequent expectancy, and attributions to variable factors are negatively related to subsequent expectancy" (p. 113).

Fitch (1970) conducted a study that observed performance as related to causal attributions (p. 311). The study utilized 135 college students who were studying business. The subjects were shown ten-dot projector slides, each containing a different number of dots. Each slide was shown for a total of three seconds, and afterward the test subjects were asked how many dots were on that particular slide. The numbers of dots on each slide ranged from seventeen to fifty (p. 312). Following the slide session, the subjects were provided with a questionnaire concerning their attributions for success or failure on the task (p. 313). As a result, the subjects mostly attributed their success to internal causes (effort and ability), but the opposite was true for the attribution of failure (p. 314).

Ames's (1984) researched the possible effects of set goals on the attributions of success and failure in solving "line-drawn puzzles" (p. 478). Eighty-eight Maryland students in grades 5-6 were selected to participate in the study. The students were classified as "high, middle, (and) low." The students were given "line-drawn puzzles" to solve, and they were instructed to continuously draw on the dotted line until the puzzle was completed. The puzzles varied from solvable to unsolvable in order to ensure groups of high and low task performers. The students were provided with statements such as, "'who can solve more puzzles this time?' (and) 'let's see who the winner will be'" (p. 480). Following the task, the students stated that they felt successful (p. 481). The results of the study showed that competitive groups of students attributed success to ability, but individual students attributed effort more readily when not asked to perform in competitive situations. (p. 484). Overall, helping students "improve their performance may not be compatible . . . in competitive situations; the implication here is that changing the goal structure of the achievement setting may facilitate many of the objectives of achievement training" (pp. 486-487).

Riemer's (1975) study observed the correlation between success and failure to subject responses (p. 1163). The study was comprised of 128 university students who had never received formal instruction in music. The subjects were previously asked to participate private instruction taught by a university piano major. Following each lesson, the students were given a short survey using a Likert scale (p. 1165). The results of the study showed that 47% of subjects attributed their minimal success to ability, "56% in effort, 69 % in task, and 47% in chance" (p. 1166).

Eccles's (1982) stated, in his presentation at the National Symposium on the Applications of Psychology to the Teaching and Learning of Music, that students who took additional mathematics in school based their decision on their personally assessed ability. She continued to say, "It is reasonable to suspect that a similar effect would hold for music" (p. 7).

Winner (2000) observed gifted children who knew the importance of hard work in achieving extraordinarily. He concluded, "gifted children who come to the attention of teachers and parents display an intense drive, or 'rage to master.'" Winner's article explores the gifted learners' thinking process in relation to how they utilize the information they gather. While the gifted learners' "environment" plays a role in their "rage to master innate ability," was still recognized as an underlying structure of the gifted learning process (p. 154). The paper questioned whether gifted students think faster than regular students or considered that their brains might possibly process things in a different way (p. 153).

Glenn's (2010) article recounted a philosophy by Carol Dweck, who asserted, "that her graduate students here at Stanford University are hard-working, creative, and resilient in the face of failure. But she wouldn't call them smart." She indicated that the ones who succeed are not the ones with the highest grades, but those that love their area of work and study, those students

that take responsibility in recognizing that they are in control of the final result do better than those that do not recognize that fact (p. B6).

Helding (2011) questioned the validity of several studies on musical skill as being attainable only through hard work (p. 451). The article observed that music teachers do not have the monetary assets to assess whether or not their students have some type of innate ability. The effects of musical "talent" were assessed in respect to the damage it could cause to a students' sense of purpose in musical studies. This damage was linked to the students' lack of confidence in having a musical ability, and resulted in the students' musical study coming to a halt. The answer given was to "get over yourself and get to work." Students should not be preoccupied with whether or not they have a speculative talent, but they should be occupied with their attentive practice time. Gary Marcus stated that the "dichotomy of talent versus environment is as useless as that of gender: neither is better, and both need each other to flourish." The article argued that whether someone believes in an innate talent or not, "in the absence of the training necessary to reveal it and the effort necessary to sustain it, talent, if it exists at all, vanishes" (p. 457).

Wojick (2011) explored whether musical skill is innate or attained through hard work. Her analysis suggested that music is mostly attained through hard work, although one researcher, Diane Richardson has countered that musical skill is both an innate ability and attained through hard work. Wojick indicated that prodigies acquire their talent through an intense drive to achieve musically. She noted that one learns music as one learns a new language. The circumstances Wojick ascertained circumstances for elevated conditions for music learning were an intense practice schedule and the encouragement of teachers, parents, and friends (p. 1).

A study by Dai and Schader (2002) indicated the importance of consistent parental backing for music students. The study observed two main areas: parental "value beliefs" and "expectancy." The study consisted of 231 children and young adults ages 6-18 and their parents (p. 135). The parents were presented with a questionnaire consisting of forty-four questions (p. 137). The questions were grouped under three topics: competency/motivation; aspirations; and effort beliefs, perceived conflict, and indecision (p. 139). Parents in the study typically answered that they did not necessarily look for talent within their child when they began private music instruction, but rather wanted their child to receive a well-rounded education (p. 135). The study showed that, unlike their children, the parents intermingled the two concepts of musical ability and motivation. The parents attributed a student's musical struggle as not being motivated while the child assumed that they did not inherit the proper amount of talent (p. 142). The study concludes that it would be difficult for a child to develop their musical talent without parental support (p. 143).

Protzko and Kaufman's review of Shenk's (2010) study concludes that a child's ability is not based on innate genetics, but rather it is acquired over time through intense musical practice. It is cultivated through a supportive environment of family and friends. Shenk presented that child prodigies who experience musical burnouts were examples of acquired talent. Their skill was attained through very intense practice as well as a highly pressurized setting. The intensity of practice schedules combined with the students' environment became too much for some, leading to a rejection of the processes for expert skill acquisition (p. 2). Shenk stated, "It would be folly to suggest that anyone can literally do or be anything," but "with humility, with hope, and with extraordinary determination, greatness is something to which any kid--of any age--can aspire" (p. 3).

Marsh, et al. (1984) completed a study concerning self-attribution and self-concept. Attribution theorists were concerned with the cause of the result. "The attributions will vary according to both characteristics of the situation and individual differences in the way subjects respond to the situation" (p. 3). The study was administered using upper elementary from varied socioeconomic backgrounds. A "self-descriptive questionnaire" was administered to smaller groups of students, over a two-day period. A group of sixty success and failure scenarios was presented to the students in which they were instructed to choose one of three outcomes using the Sydney Attribution Scale (p. 17). The results showed the majority of subjects attributed success to an internal ability (p. 21). "Support for the proposed relationship between attributions and dimensions of the self-concept is also strong" (p. 28). It was noted that young and old attributions for success and failure would most certainly contrast (p. 30).

Greenberg (1970) performed a study on the reasons why a small portion of society never learns to sing in tune, have a fear to be heard, and why they just do not succeed. Previous results have shown that factors for these failures were due to "emotional and psychological blocks" and that there are no "remedial techniques" known to help correct the difficulties. The study looked at self-concept, which is how a person sees him or herself (p. 57). It was noted that, "underachievement in music, including the lack of ability to sing in tune, is in part a function of the individual's self-concept." The study observed ten male students that had voice-matching problems, but who wanted to join the eighty-four-member chorus. Those male students were given a self-concept survey, and it was found that they felt inadequate in music as compared to other subjects (p. 59). The ten male students rehearsed with the other chorus members and did not receive any personal training (p. 60). It was found that music success is dependent on a "positive self-concept" (p. 63).

Sloboda (2005) summarized Chase and Ericsson's (1981) study on the acquisition of expertise. The study observed one subject referred to as SF. SF was an expert at recalling a large set of numbers by memory. They observed that expertise in recalling digits was not specific to SF, but rather that any person determined to acquire the same skill would be able to do so through intense practice. There is little difference between SF and any other person wanting to perform the same task (p. 244). Although, one point of importance for SF was that he had optimal experiences that helped him to attain his extraordinary skill (p. 246). Chase and Ericsson compared SF's ability to the same circumstances of language acquisition (p. 244).

A study by Ho and Chong (2010) observed a gifted musical adolescent from Singapore (p. 49). The purpose of the study was to explore the development of talent through two personal interviews with the parents and the test subject. There were also follow-up interviews with the subject's teachers, as well as the local newspaper. The information was then placed into categories. "The study revealed key themes that represented the types of causal factors in (the adolescent's) development" (as in) "natural abilities, early musical experiences, empowerment and motivation for success, support from significant others, (and) cultural knowledge and values" (pp. 50-51).

Bell, et al. (1994) examined the attributions of success and failure and its affect on gender performance in school academia (p. 4). The study consisted of 237 elementary students in grades 4-5. The students were divided by gender and ability. The students' successes and failures in math and reading were assessed using the Sydney Attribution Scale. The following three factors were observed: content area, outcome, and attribution (p. 7). The results showed that the majority of high achievers, as compared to low achievers, in math and reading attributed their success to

ability, and that low achievers attributed failure in math and reading to a lack of ability. Also, the examiners "found no gender differences in attributions for success to ability" (p. 10).

The following studies concern professional views on attributional success:

Concerning artistic ability, Hyllegard (2000) presented a study on how parents attribute success for gifted children. The study began by observing the great skill of the artist Vincent van Gogh (p. 1134). Van Gogh was known for his extensive communications with friends and family. Hyllegard noted that Van Gogh did not feel as if he had a great innate ability, but that "he became an artist through many years of study, work, and training" (p. 1135). The study was given to the parents of gifted children in upper-elementary and middle grades. The parent participants provided responses to a survey of the following six items: parents rated their own artistic ability, rated their child's skill, rated child's artistic progression, rated child's artistic understanding, scored child's progression, and related the time their child spent each week in practice and study. Forty-five parents successfully completed the study and the results showed that the parents overwhelmingly attributed their child's artistic skill and success to some type of innate ability (pp. 1137-1138, 1141). However, the parents submitted that their children seemed to possess an internal sense of consistent motivation to achieve artistically (p. 1143).

Judge (2009) questioned whether musical talent is based on an innate ability or attained through hard work. She noted that several studies do not accept innate abilities as being factual. She reminds the reader that even J.S. Bach did not believe in an innate ability, but rather attributed his immense skills to hard work (*Ich arbeitete fleissig*) and said that it is up to each individual to make the choice whether they will take that challenge. Judge said that a child must show a strong love for music if they are to develop extensively in the field (p. 14). Potential was exemplified through the positive reactions of very young musicians toward their musical

experiences before beginning and after musical training had begun. The author referred to this potential as an innate ability, but at the same time she claimed that without an intense practice schedule potential would never be achieved (p. 15).

Colvin (2008) conducted a study of 257 young music students that were organized in five groups. The results showed that there were no signs of innate talent (p. 17). Colvin reiterates that Mozart did not have an innate ability, but he had a father who was an outstanding teacher. This father/teacher combination drove Mozart intensely to acquire his advanced musical skills (pp. 25-26). Colvin has even pointed out further claims that "call Tiger Woods the Mozart of golf." (p. 29). Wood's father noted that Tiger was not born with an innate ability to play golf, but rather attained his skills through intense work and practice, as well as focus and parent backing (pp. 30-31).

Holloway's (1989) article examined how the citizens of Japan and the United Stated attributed success, either to ability or effort. Holloway looked at academic achievement, views on effort and ability, and achievement goals (p. 327). Japanese citizens mostly attribute success to effort and American citizens attribute success more to an innate ability (pp. 329-330). "The Japanese appear to ensure later academic and professional achievement by developing in the early years . . . for acquiring whatever skills are necessary to obtain success" (p. 341).

CHAPTER III

PROCEDURES PILOT STUDY

For the pilot study, a researcher-developed questionnaire was administered to thirty-seven university music majors and thirty-seven adult non-music majors who volunteered to participate. Simultaneously, an assistant presented the questionnaire to thirty-seven music majors from a private Christian, liberal arts university, in small groups of two or three subjects.

On a separate occasion, this researcher, along with two other assistants, administered the questionnaire to thirty-seven adult non-music majors from three local church chancel choirs. All three churches were from small, neighboring counties in East Tennessee. The questionnaire was administered to the test subjects following a Sunday morning service. The forms were completed and returned to the study administrators prior to chancel choir dismissal.

During both university and chancel choir sessions, this researcher and his assistants gave specific instructions to the subjects to not discuss their answers, or feelings, about their evaluations', until all subjects had finished and returned the evaluation forms.

CHAPTER IV

RESULTS PILOT STUDY

This study compared the questionnaire results of thirty-seven university music majors with those of thirty-seven adult non-music majors. Thirty-six university music majors had reported ages of 18 to 25, and one with a reported age of 41 to 45. Of the music majors, each reported having studied music privately between 4 and 17 years, with an average m = 9.3 years. The ages of the thirty-seven adult non-music majors ranged from ages 18 to 70, and only nine of the test subjects in this group had participated in private music study, these experiences ranging from three months to three years, with an average m = 1.47 years.

From the attribution questionnaire "Do you believe that good musicians are the result of: (a) innate talent (b) hard work (c) a combination of hard work and innate talent," thirty-four of the university music majors chose (c) combination of hard work and innate talent, three subjects chose (b) hard work, and no one chose (a) innate talent.

The following are comments from university music majors:

1. A vocal music education student who chose (c) commented, "Hard work greatly outweighs innate talent. Practice is essential, often times innate talent will go unnoticed if practice does not reveal it."
2. A percussion major who also chose (c) gave the response, "True success is impossible without hard work. Talent can only get you motivated."

From the three subjects that chose (b) two gave the following responses:

1. A saxophone student wrote, "Really great musicians probably have some innate talent, but not every musician is born with talent. Becoming a great musician requires a lot of hard work, and those with great innate talent are just mediocre without hard work."
2. A piano major, wrote, "*Untalented* is an excuse people make so they don't have to work hard. Maybe 5 or 4% of *untalented* kids are actually untalented, it's all about work ethic, and the more talented *kids* didn't have a childhood, they practiced 6 hours a day."

The adult non-music majors responded to the same attribution question, and out of the thirty-seven, thirty-four subjects selected (c) combination of hard work and innate talent, two selected (b) hard work, and one picked (a) innate talent.

The following are comments from non-music majors:

1. A subject listed as a teacher, who chose option (c) clarified, "I believe that good musicians have talent that they develop with use. There has to be an ability to hear music too."
2. One other subject, listed as a printing clerk, who also chose option (c) wrote, "You can have the talent to do the music, but without hard work and motivation to accomplish and bring out the beauty that it can display, it won't have the quality that it could have."

The two subjects who chose (b) hard work, and the one subject who chose (a) innate talent, did not provide an answer to the open-response portion of the question.

Using the “Freeman-Halton extension of the Fisher exact probability test,” the statistical result was $p < .9999$ and there is no statistical difference between the two groups.

From this pilot study it was determined that a researcher-developed questionnaire, similar to the one used in the pilot study, was presented to the study subjects. Small changes were made to the first question in order to force respondents to make a definite decision, and later on the respondents were given the opportunity to express themselves more freely with the insertion of an open response question. In addition to the changes to the first question, and the insertion of the open response question, three new questions were added to the study, bringing the total number of questions to eight [see Appendix B].

CHAPTER V

PROCEDURES THESIS STUDY

The revised questionnaire was given to thirty-four university music majors and thirty-four adult non-music majors, all of which volunteered to participate in this study. The thirty-four university music majors were from a public, state university, unlike the Christian, private, liberal arts university used in the pilot study. The adult non-music majors were selected from the same church chancel choirs used in the pilot study.

Each set of subjects was given identical instructions regarding the procedures for the study. Each test subject was instructed not to discuss his/her answers to the questionnaire, or feelings about the questionnaire, with any other subject until each subject had completely finished the evaluation. Silence among subjects was essential in keeping the study results unadulterated. One assistant administered the questionnaire to the thirty-four university music majors during a weekly music assembly. The researcher and two other assistants tendered the same questionnaire to the thirty-four adult non-music majors during two weekly chancel choir practices.

CHAPTER VI

RESULTS THESIS STUDY

This study compared the questionnaire results of thirty-four university music majors with those of thirty-four adult non-music majors. The first question on the study asked, "Do you believe that good musicians are primarily the result of (a) innate talent (b) hard work?" The results showed that the majority, twenty-nine, of university music majors attributed music success to (b) hard work, and five university music majors attributed music success to (a) innate talent. Of the thirty-four adult non-music majors, seventeen chose (a) innate talent, and seventeen chose (b) hard work, for their attribution of musical success (Table 1).

Table 1

Music Attributions for Success

	Music Majors	Non-Music Majors
Innate Talent	5	17
Hard Work	29	17
Total	n = 34	n = 34

The second question stated, "Please make any comments you might have about the first question above." Five university music majors who chose (a) innate talent, gave the following responses:

1. A university student/private teacher/church musician wrote, “I think talent comes first, then, it’ll be perfected with hard work, practice, concentration, focus, and opportunities to perform.”
2. A university music student wrote, “Both innate talent and hard work are necessary to learn music, but I feel that it is almost impossible without innate talent.”
3. Another music student stated, “I believe that to be a musician, you have to have natural talent. However, talent must be developed in order to reach the professional level. Both are essential to musicianship.”
4. A college student listed as a CNA/composer stated, “It is almost an even field for both. But if you take two siblings who have been exposed to the same amount of music, but one just naturally can play the piano better even if they both take piano lessons there has to be a built in talent for music in that person. Even though both are working just as hard.”
5. Another college music student wrote, “Good musicians are the result of innate talent. Great musicians come from hard work. The best musicians come from both. Both are extremely important. In some cases it’s hard to imagine one without true talent and those who are the opposite. Neither one is more or less important than the other.”

The following comments are from adult non-music majors that chose (a) innate talent:

1. A teacher wrote, “I believe that certain people have a natural talent in the arts. These excel with practice. Novice people don’t do as well and never achieve the highest level. I see this in all areas. Some people don’t have any artistic talent and it doesn’t matter how much instruction or practice they receive they can’t improve and usually

drop out of the field because they are fully aware of their lacking of talent. The ones who remain usually have talent with lots of practice."

2. A storekeeper wrote, "I believe that people who have innate talent are gifted from God and they just naturally sound good. I believe that people who have to really work at it can do good, but they most likely will never be able to meet the standards as the ones who are of innate talent."
3. A substitute teacher stated, "Your talent is given by God."
4. A hairdresser stated, "If a person does not have innate talent, no matter how much hard work they do, most of the time they will never be a good musician."
5. A bookkeeper wrote, "Even though I feel talent plays a major factor in being a good musician, without hard work to 'hone' those talents, you can never reach your full potential."
6. An elementary special education teacher stated, "Some people have abilities in music that can't be developed (tone-deaf), some people can't work hard and become good musicians. However, hard work with talented people can produce great musicians."
7. A desk clerk stated, "God has blessed some people with innate talent, but it takes hard work to accomplish the beauty and ability to produce the music itself."
8. A sales assistant wrote, "I think a good musician is born with the love and talent for music. But the great musicians put in a lot of hard work."
9. A student wrote, "I believe God blesses people with different talents and some people get blessed with musical talents."
10. A stonemason stated, "I believe that this is a blessing from God and that you must choose what you do with it."

11. A student wrote, “I think people are born with it, whether they choose to use it or not. That is ultimately their choice.”
12. A security supervisor wrote, “I think a person can become a good musician with hard work, but to be a great musician, I think you have to be born with musical talent. I feel God gave me my musical talent to use for his work.”
13. A bishop wrote, “Innate talent is what gives one the drive to become accomplished through the long hours of hard work.”
14. A businessman wrote, “Music talent is a gift of God to be used to worship God.”

The following responses are from university music majors who chose (b) hard work:

1. A university music student, who works as a barista wrote, “Everything worth doing takes hard work. Sure, some people have different natural skill levels, but that has nothing to do with their heart and passion for what they do.”
2. A university music student wrote, “I believe hard work creates excellence. The innate talent accelerates the process of greatness.”
3. A university student, who is also a church musician/sales associate stated, “Anyone can have a given talent, but to be able to become better at it, you need hard work. Perfection is an art that is worked out in order to possess.”
4. A university student drum set instructor stated, “Having talent makes the work not quite as hard, and obviously will have a better result that anyone who doesn’t have talent and whose practiced for years.”
5. A university student/piano teacher said, “While I believe that many musicians have innate talent, I believe that the majority of people who are good musicians got that way by working very hard.”

6. A university music student listed as a church pianist stated, “The harder you work, the better you will get, but some people can’t get good no matter how hard they try, so some innate talent is part of being good as well.”
7. A university student/teacher/server stated, “1% inspiration, 99% perspiration. I definitely believe in a musical sense of sorts, but hard work will prevail through all things.”
8. One university music student wrote, “Both are extremely important. Innate talent is important and can make a musician great, but with hard enough work, even tone deaf musicians can give good performances.”
9. A university music student that works in the fast food industry stated, “I do believe some people can have a natural talent for music, but to really thrive musically, one must practice and put in hard work.”
10. A university music student that works at Soree, Inc. stated, “The role of a good musician is to practice and be involved. Most musicians do his or her part of hard work; however, select few just run off talent.”
11. A university student/state park employee wrote, “Some people have innate talent, but most people have to put a lot of work into practicing and studying to better understand.”
12. A university music student stated, “I honestly think it takes to some degree both. However, hard work can bring a musician music further musically rather than sheer talent alone.”

13. A university student listed as a performer/teacher wrote, “Talent is only a means of starting successfully. Talent, no matter how much, cannot achieve musicality on its own. It is more desirable, then, to be a hard worker than to have natural talent.”
14. A music student responded, “Anybody can be talented, but talent without hard work is ignorance.”
15. A university musician/student stated, “Talent can only be utilized through hard work.”
16. Another university music student wrote, “I honestly believe it involves both.”
17. One music student stated, “Yes, some people are born with it, but many people always strive to be better. That way someone can always get better.”
18. A university student who is a musician wrote, “Hard work is essential in being a good musician because playing in a band or orchestra or any ensemble your style and role is constantly changing and innate or raw talent doesn’t justify a good performance.”
19. One music student stated, “I believe good musicians must have some form of natural talent, but in the end it really boils down to how hard the musician works! Practice, practice, practice!”
20. Another university music student wrote, “Most professional musicians say when they were young they were the ones who had to work to achieve their status.”

The following responses are from adult, non-music majors who chose (b) hard work:

1. A firefighter wrote, “You can do all things if you put your mind to it.”
2. A logger stated, “You can be good with innate talent, but you can be great with hard work.”

3. A bookkeeper wrote, “You may already have a talent, but it takes hard work to make your talent in line with God’s work.”
4. A Home Health Aide CNA wrote, “I know that God gives us talents, but we have to work and practice a lot to develop that talent.”
5. Another CNA wrote, “Innate talent is a good thing, but with hard work a person can reach their full potential.”
6. A registered medical assistant stated, “I have always believed in the saying ‘practice makes perfect.’ You can do anything you put your mind to.”
7. A housewife wrote, “Talent without hard work won’t take a person very far. It really takes both.”
8. A schoolteacher wrote, “God gives the talent, we provide the effort, that’s when God blesses.”
9. A factory trimmer stated, “Well, some people are born with talent, some are not. God will lead you where you need to be, and your talent in music.”
10. A machine operator wrote, “Learning an instrument requires a lot of hard work and determination.”
11. An instructional aide for special education commented, “You have to have a natural rhythm and a lot of hard work and practice. I think it would be harder to learn music if you had no concept of rhythm or beat in music.”
12. A student wrote, “It takes hard work to truly learn music. Talent just helps you learn something more easily.”
13. A chancel member that identified himself as retired stated, “Some are born with the talent to play any musical instrument, but it will still take hard work.”

The third question asked, "How many years of private music instruction have you had? If you have had none, just write 0." The thirty-four university music majors' years of private music instruction ranged from 1.5 to 17 years with an average m = 6.49 years. Out of the thirty-four adult non-music majors, twenty-eight subjects answered that they had never had any private music instruction. The remaining six subjects' private music instruction ranged from six months to three years.

The fourth question asked, "What age group are you in?" Thirty-three university music majors reported that their age was between the ages of 18 to 25, and the remaining music major had a reported age of 26 to 30. The following age groups were reported for the adult non-music major test subjects: Seven marked 18 to 25, two selected 26 to 30, four circled 31 to 35, four responded 36 to 40, two replied with 41 to 45, three stated 46 to 50, six were 56 to 60, five selected 65 to 70, and one did not respond (Figure 1).

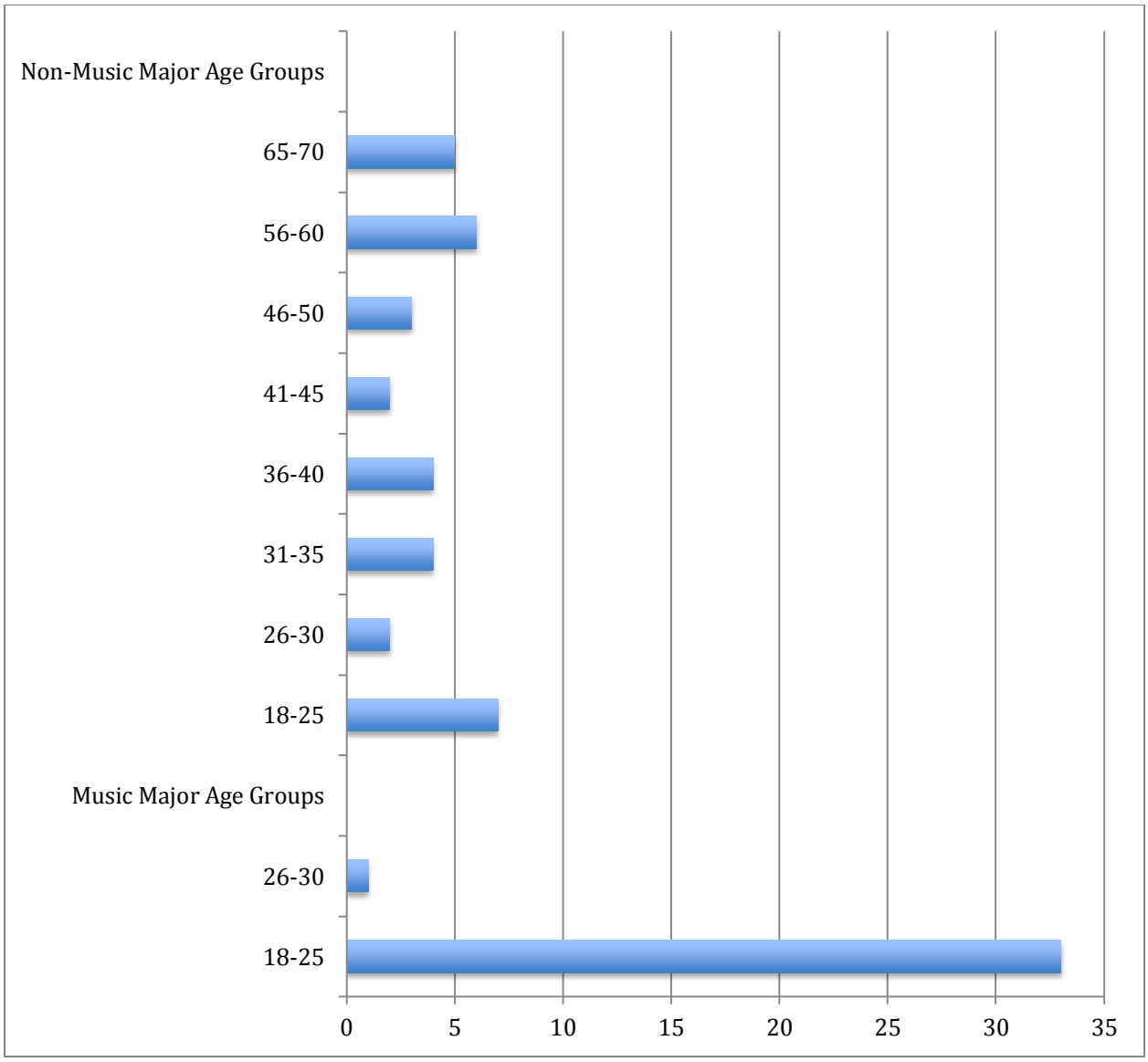

Figure 1. Music major and non-music major age groups.

The fifth question asked, "What is your occupation?" This information was used in conjunction with the second question. The sixth question asked, "Are you male or female?" Twenty-five university music majors were male and nine university music majors were female. Twenty-four of the twenty-five male university music majors selected (b) hard work, for their attribution of musical success, and one male university music major chose (a) innate talent. Five

of the nine female university music majors chose (b) hard work, for their attribution of success, and four female university music majors chose (a) innate talent. Out of thirty-four adult non-music majors, there were ten male subjects and twenty-four female subjects. Five male non-music majors chose (a) innate talent, and five male non-music majors chose (b) hard work. Twelve female non-music majors selected (a) innate talent, and twelve female non-music majors chose (b) hard work.

The seventh question asked, "What level of musician do you consider yourself right now?" The subjects from both groups were instructed to choose one number using a 5-point Likert scale, with (1) being beginner to (5) being professional. None of the university music majors chose a rating of (1) while four chose (2) sixteen chose (3) nine selected (4) and the remaining three chose (5). For the adult non-music majors, sixteen chose (1) six chose (2) eight chose (3) three selected (4) and one chose (5) (Figure 2).

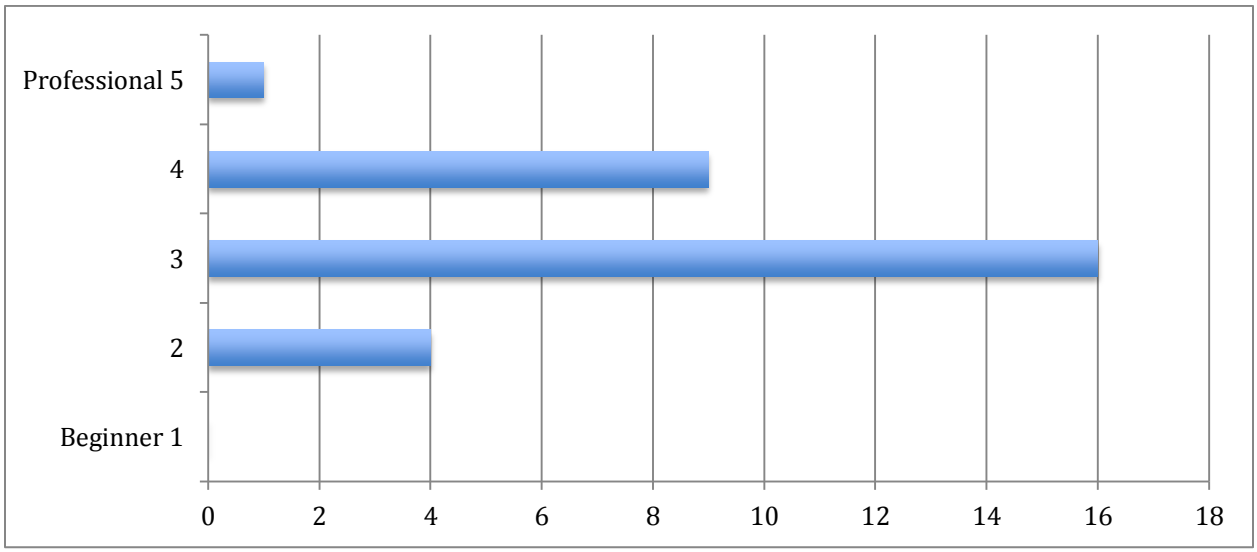

Figure 2. Music majors chose their level of musical expertise using a Likert scale of 1 to 5 with 1 being beginner and 5 being professional.

The eighth question asked university music majors, “What state of the U.S. do you consider yourself to be from primarily—the one with which you most identify?” Thirty-one college music majors stated that they were from Tennessee, one from California, one from Florida, and one from North Carolina. A similar question was asked of the adult non-music major subjects, “What state do you consider yourself to be primarily from, the state with which you most identify?” Thirty-two non-music majors primarily identified with the state of Tennessee, one identified with the state of Georgia, and one identified with the state of Ohio.

Using the Fisher exact probability test, the statistical results on the attribution of a good musician were $p < .0016$ and there is a statistical difference between the two groups at the .001 level.

CHAPTER VII

DISCUSSION

The results of the pilot study suggested that both university music majors (private, Christian, liberal arts university) and adult non-music majors were the same group. The attribution survey asked, "Do you believe that good musicians are the result of (a) innate talent (b) hard work (c) a combination of hard work and innate talent?" The overpowering majority of both groups chose (c), with a result of $p < .9999$. The findings from the pilot study suggest a third option causes test subjects to feel ambiguity toward a response.

The results of the thesis study showed that both university music majors (public university), and adult non-music majors were clearly different groups. When asked, "Do you believe that good musicians are primarily the result of (a) innate talent (b) hard work," the majority of university music majors attributed musical skill to hard work and adult non-music majors were equally divided between innate talent and hard work. The results using the Fisher were $p < .0016$, and was statistically significant at .001.

In the pilot study seventy-five percent of the university music majors, from a private, Christian, liberal arts university were born natives of the southern United States. Richerson and Boyd (2005) wrote, "People in culturally distinct groups behave differently, mostly because they have acquired different skills, beliefs, and values, and these differences persist because the people of one generation acquire their beliefs and attitudes from those around them" (pp. 5-6).

They also stated, “Different populations exhibit persistent variations in language, social customs, moral systems, practical skills and devices, and art;” and, “We are largely what our genes and our culture make us” (pg. 6). David Hackett Fischer (1991) discussed the “*thoughtways* or conventional systems of vernacular reasoning that developed within each regional culture” (pg. 301). Both the article and book assisted in a speculation that southerners were known to attribute special-type skills to innate abilities; this certainly appears to be the case for this study (W. R. Lee, personal communication, February 17, 2011). This researcher speculates that since the university music majors and adult non-music majors were given a third option instead of only innate talent or hard work, this was the factor that permitted the subjects to more easily choose an indecisive answer.

The results for the thesis study were significantly different from the pilot study. The thirty-four university music majors were from a public, southern university. Twenty-nine university music majors attributed musical skill to hard work and five attributed musical skill to innate talent.

Overall, the reason for attributional differences in the pilot study and thesis study are unclear. Were the results due to a switch from university music majors from a private, Christian liberal arts university in the pilot study to students from a public, southern university in the thesis study, or was the difference due to the lack of the indecisive answer (c) combination of both innate talent and hard work, previously used in the pilot study?

CHAPTER VIII

CONCLUSION

According to Sloboda (2005), musical skill is acquired through intense practice and hard work, not from some type of innate trait (pp. 275-276). In this study it was hypothesized that music majors attribute success in music to the level of work expended, not to "talent" or some fixed, internal ability. The pilot study utilized a questionnaire consisting of four multiple-answer questions and one open-response question. For the question, "Do you believe that good musicians are the result of (a) innate talent (b) hard work (c) a combination of hard work and innate talent," thirty-four out of thirty-seven university music majors and thirty-four out of thirty-seven non-music majors both chose (c) a combination of hard work and innate talent. The results, using Freeman-Halton, $p < .9999$, indicated that there was no significant difference between the thirty-seven university music majors and the thirty-seven non-music majors. The results unmistakably did not represent the hypothesized outcome. It is important, that the public becomes aware of accurate information concerning the acquisition of musical skills, because, unfortunately, many music students quit their private music lessons due to the false belief that they do not have the appropriate measure of innate musical ability.

For the thesis study, it was hypothesized that music majors attribute success in music to the level of work expended, not to "talent" or some fixed, internal ability as compared to adult non-music majors. The subjects were provided with a seven question and one open-response

questionnaire. For the question, "Do you believe that good musicians are primarily the result of (a) innate talent (b) hard work," twenty-nine university music majors chose (b) hard work, and five chose (a) innate talent. The adult non-music majors were equally divided between innate talent and hard work. The results using the Fisher were $p < .0016$, and there was a statistical difference at .001. This research supports Legette's (2002) study of both music and regular education major's attributions of student success and failure in music education. The results of his study showed that the two groups chose effort and ability equally for student success and failure in music.

Asmus (1985) mentioned, "teachers can influence student's perceived causes of success and failure in music and thus the students' motivational characteristics" (p.10). Vispoel and Austin (1993) wrote, "teachers will be more successful in enhancing student motivation and persistence if they abandon the notion that ability is stable and uncontrollable" (p. 124). In Colvin's (2008) study, even Tiger Wood's father noted that Tiger was not born with an innate ability to play golf, but rather attained his skills through intense work and practice, as well as focus and parent backing (pp. 30-31). Wojick's (2011) analysis suggested that music is mostly attained through hard work, but one researcher, Diane Richardson countered that musical skill is both an innate ability and attained through hard work. She continued to say that child prodigies acquire their talent through an intense drive to achieve musically (p. 1). Helding (2011), on the other hand questioned the validity of several studies on musical skill as being attainable only through hard work (p. 451). She said that the effects of "talent" were assessed in respect to the damage it could cause to students' sense of purpose in musical studies. This damage was linked to the students' lack of confidence in having a musical ability and the students' musical study coming to a halt. The answer given was, "get over yourself and get to work." Students should not

be preoccupied with whether or not they have a speculative talent, but they should be occupied with their attentive practice time (p. 457). Even Hyllegard (2000) mentioned that Van Gogh did not feel as if he had a great innate ability, but that "he became an artist through many years of study, work, and training" (p. 1135).

Further studies should be performed to determine whether there is a significant difference between the process at which private, Christian university music majors and public, state university music majors attribute the attainment of musical skills.

This study was limited to adult chancel choir members and university music majors. Research should be conducted to determine whether middle and high school music performing arts students attribute the attainment of musical skills differently from those of state university music majors.

Additionally, regional research should be conducted to determine whether southern state university music majors' attributions of musical skills are different from those of northern and western state university music majors.

REFERENCES

Ames, C. A. (1984). Achievement attributions and self-instructions under competitive and individualistic goal structures. *Journal of Educational Psychology, 76*(3), 478-487.

Asmus, E.P. (1986a). Achievement motivation characteristics of music education and music therapy students as identified by attribution theory. *Bulletin – Council for Research in Music Education, 86*(12), 71-85.

Asmus, E. P. Jr. (1985). Sixth graders' achievement motivation: Their views of success and failure in music. *Bulletin – Council for Research in Music Education, 85*, 1-13.

Asmus, E. P. Jr. (1986b). Student beliefs about the causes of success and failure in music: A study of achievement motivation. *Journal of Research in Music Education, 34*(4), 262-278.

Austin, J. R., & Vispoel, J. R. (1998). How American adolescents interpret success and failure in classroom music: Relationships among attributional beliefs, self concept and achievement. *Psychology of Music, 26*, 26-45.

Bar-Tal, D., Goldberg, M., & Knaani, A. (1984). Causes of success and failure and their dimensions as a function of sex and gender: A phenomenological analysis. *The British Journal of Educational Psychology, 54*, 51-61.

Beckman, L. J. (1976). Causal attributions of teachers and parents regarding children's performance. *Psychology in the Schools, 13*(2), 212-218.

Bell, S. M., McCallum, R. S., Bryles, J., Driesler, K., McDonald, J., Park, S. H., Williams, A. (1994). Attributions for academic success and failure: An individual difference investigation of academic achievement and gender. *Journal of Psychoeducational Assessment, 12*, 4-13.

Carey, J. (2005). Talent versus effort: Effects of gender differences in music education (Master theses, Ohio State University, 2005). *Knowledge Bank,* Retrieved January 21, 2012, from http://hdl.handle.net/1811/428

Chandler, T. A., Chiarella, D., & Auria, C. (1988). Performance expectancy, success, satisfaction, and attributions as variables in band challenges. *Journal of Research in Music Education, 35*(4), 249-258.

Chapman, J. W., & Lawes, M. M. (1984). Consistency of causal attributions for expected and examination outcome: A study of the expectancy confirmation and egotism models. *The British Journal of Educational Psychology, 54*(2), 177-188.

Colvin, G. (2008). *Talent is overrated: What really separates world-class performers from everybody else.* New York: New York.

Dai, Y. D.; Schader, R. M. (2002). Decisions regarding music training: Parental beliefs and values. *Gifted Child Quarterly, 46*(2), 135-144.

Eccles, J. P. (1982). Children's motivation to study music. *National Symposium on the Applications of Psychology to the Teaching and Learning of Music.* (1-31). Ann Arbor: University of Michigan. Retrieved January 21, 2012, from http://www.rcgd.isr.umich.edu/garp/articles/ecclesparsons82g.pdf

Elig, T. W. & Frieze, I. H. (1979). Measuring causal attributions for success and failure. *Journal of Personality and Social Psychology, 37*(4), 621-634.

Evans, R.; Pendarvis, E.; Bickel, R. (2000). Musical talent: Innate or acquired? Perceptions of students, parents, and teachers. *Gifted Child Quarterly, 44*(2), 80-90.

Fischer, D. H. (1991). Albion and the critics: Further evidence and reflection. *The William and Mary Quarterly, 48*(2), 260-308.

Fitch, G. (1970). Effects of self-esteem, perceived performance, and choice on causal attributions. *Journal of Personality and Social Psychology, 16*(2), 311-315.

Frieze, I. H., Snyder, H. N. (1980). Children's beliefs about the causes of success and failure in school settings. *Journal of Educational Psychology, 72*(2), 186-196.

Glenn, D. (2010, May 14). Carol Dweck's mindset: It's not about how smart you are. *The Chronicle Review,* pp. B6, B9.

Greenberg, M. (1970). Musical achievement and the self-concept. *Journal of Research in Music Education, 18*(1), 57-64.

Ho, P. S. K.; Chong, S. N. Y. (2010). The talent development of a musically gifted adolescent in Singapore. *International Journal of Music Education, 28*(1), 47-60.

Helding, L. (2011). Innate talent: Myth or reality? *Journal of Singing,* 67(4), 451-458.

Holloway, S. D. (1988). Concepts of ability and effort in Japan and the United States. *Review of Educational Research, 58*(3), 327-345.

Hyllegard, R. (2000). Parental attribution of artistic ability in talented children. *Perceptual and Motor Skills, 91*(3), 1134-1144.

Judge, J. (2009). Musical talent: Born genius? *American Music Teacher, 58*(5), 14-16.

Legette, R. M. (1993). Causal attributions of music majors and nonmusic majors regarding success and failure in music: A study of motivation and achievement. [Electronic version]. *Research Perspective in Music Education, 4,* 3-6.

Legette, R. M. (1998). Causal beliefs of public school students about success and failure in music. *Journal of Research in Music Education, 46*(1), 102-111.

Legette, R. M. (2002). Pre-service teachers' beliefs about the causes of success and failure in music. [Electronic version]. *Applications of Research in Music Education, 21*(1), 1-8.

Legette, R. M. (2003). *Bulletin of the council for research in music education* (G. DeNardo, & R. Whitcomb, Eds.). Illinois: Urbana.

Marsh, H. W., Cairns, L., Relich, J., Barnes, J., & Debus, R. L. (1984). The relationship between dimensions of self-attribution and dimensions of self-concept. *Journal of Educational Psychology, 76*(1), 3-32.

McFarland, C., & Ross, M. (1982). Impact of causal attributions on affective reactions to success and failure. *Journal of Personality and Social Psychology, 43*(5), 937-946.

McMahan, I. D. (1973). Relationships between causal attributions and expectancy of success. *Journal of Personality and Social Psychology, 28*(1), 108-114.

Medway, F. J. & Lowe, C. A. (1980). Causal attributions for performance by cross-age tutors and tutees. *American Educational Research Journal, 17*(3), 377-387.

Painsi, P. & Parncutt, R. (2004). Children's, teachers' and parents' attributions of children's musical success and failure. *The 8th International Conference on Music Perception and Cognition.* (pp. 1-3). University of Graz, Austria. Retrieved January 21, 2012, from http://www.icmpc8.umn.edu/proceedings/ICMPC8/PDF/AUTHOR/MP040073.PDF

Prawat, R. S., Byers, J. L., & Anderson, A. H. (1983). An attributional analysis of teachers' affective reactions to student success and failure. *American Educational Research Journal, 20*(1), 137-152.

Protzko, J.; Kaufman, S. B. (2010). Disquisitiones Ingenia [Review of the book *The genius in all of us: Why everything you've been told about genetics, talent, and IQ is wrong*]. *PsycARTICLES*, 3-4.

Raviv, A., Bar-Tal, D., Raviv, A., &Bar-Tal, Y. (1980). Causal perceptions of success and failure by advantaged, integrated and disadvantaged pupils. *British Journal of Educational Psychology, 50,* 137-146.

Richerson, P. J., Boyd, R. (2005). *Not by genes alone: How culture transformed human evolution.* Chicago: University of Chicago Press.

Riemer, B. S. (1975). Influence of causal beliefs on affect and expectancy. *Journal of Personality and Social Psychology, 31*(6), 1163-1167.

Ross, L., Bierbrauer, G., & Polly, S. (1974). Attribution of educational outcomes by professional and nonprofessional instructors. *Journal of Personality and Social Psychology, 29*(5), 609-618.

Russell, D. W., McAuley, E., & Tarico, V. (1987). Measuring causal attributions for success and failure: A comparison of methodologies for assessing causal dimensions. *Journal of Personality and Social Psychology, 52*(6), 1248-1257.

Schmidt, C. P. (1995). Attributions of success, grade level, and gender as factors in choral students' perceptions of teacher feedback. *Journal of Research in Music Education, 43*(4), 313-329.

Sloboda, J. (2005). *Exploring the musical mind.* New York: Oxford.

Vispoel, W. P. & Austin, J. R. (1993). Constructive response to failure in music: The role of attribution feedback and classroom goal structure. *British Journal of Education Psychology, 63,* 110-129.

Vispoel, W. P. & Austin, J. R. (1995). Success and failure in junior high school: A critical incident approach to understanding students' attributional beliefs. *American Educational Research Journal, 32*(2), 377-412.

Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology, 71*(1), 3-25.

Weiner, B., Russell, D., & Lerman, D. (1979). The cognition-emotion process in achievement-related contexts. *Journal of Personality and Social Psychology, 37*(7), 1211-1220.

Winner, E. (2000). Giftedness: Current theory and research. *Current Directions in Psychological Science, 9*(5), 153-156.

Wojcik, J. A. (2011). *Musical talent: Innate or learned?* Retrieved October 12, 2011, from http://www.tip.duke.edu/node/658

APPENDIX A

IRB APPROVAL LETTER

MEMORANDUM

TO: Brian Harris **IRB # 12-014**
William R. lee

FROM: Lindsay Pardue, Director of Research Integrity
Dr. Bart Weathington, IRB Committee Chair

DATE: January 20, 2012

SUBJECT: IRB # 12-014: Attribution Beliefs in Music Learning: 'Talent' or Hard Work?

The Institutional Review Board has reviewed and approved your application and assigned you the IRB number listed above. You must include the following approval statement on research materials seen by participants and used in research reports:

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project #12-014.

Please remember that you must complete a Certification for Changes, Annual Review, or Project Termination/Completion Form when the project is completed or provide an annual report if the project takes over one year to complete. The IRB Committee will make every effort to remind you prior to your anniversary date; however, it is your responsibility to ensure that this additional step is satisfied.

Please remember to contact the IRB Committee immediately and submit a new project proposal for review if significant changes occur in your research design or in any instruments used in conducting the study. You should also contact the IRB Committee immediately if you encounter any adverse effects during your project that pose a risk to your subjects.

For any additional information, please consult our web page http://www.utc.edu/irb or email instrb@utc.edu

Best wishes for a successful research project.

APPENDIX B

ORIGINAL SURVEY

Please

I am doing a study that explores beliefs about music learning. Would you help me out by answering the following five questions? I would REALLY appreciate it.

Your answers will never be identified with you as a person, so you do not have to put your name on the copy. Your help in answering the questions truthfully would be sincerely appreciated.

Pilot Study

Questionnaire

1. Do you believe that good musicians are the result of (circle one of the letters)
   (a) innate talent
   (b) hard work
   (c) a combination of hard work and innate talent

2. How many years of private music instruction have you had? If you have had none, just write "0."
   _____

3. What age group are you in? (circle one of the letters)

(a) 18-25 years old	(e) 41-45	(i) 61-65
(b) 26-30	(f) 46-50	(j) 66-70
(c) 31-35	(g) 51-55	(k) 71-75
(d) 36-40	(h) 56-60	

4. Please make any comments about the first question above. This is optional.

5. What is your occupation? _____
   If you are a student, put "student."
   If you are retired, please put what you did before you retired.

APPENDIX C

REVISED SURVEY

Please

I am doing a study that explores beliefs about music learning. Would you help me out by answering the following questions? This will take less than five minutes and be of tremendous help to me.

Your answers will never be identified with you as a person, so you do not have to put your name on the copy. Your help in answering accurately and truthfully would be sincerely appreciated. Thank you very much.

Thesis Study

Questionnaire

1. Do you believe that good musicians are primarily the result of (circle one of the following letters)
   (a) innate talent
   (b) hard work

2. Please make any comments [*give your opinion about the role of hard work and/or innate talent in music learning*] you might have about the first question above. This is important. Use the back as necessary.

3. How many years of <u>private</u> music instruction have you had? If you have had none, just write "0." _____

4. What age group are you in? (circle <u>one</u> of the letters)

(a) 18-25	(c) 31-35	(e) 41-45	(g) 51-55	(i) 61-65	(k) 71-75
(b) 26-30	(d) 36-40	(f) 46-50	(h) 56-60	(j) 65-70	(l) over 75

5. What is your occupation? _____
   If you are a student, put "student."
   If you are retired, please put what you did before you retired.

6. Are you male or female? (circle one!)

7. What <u>level</u> of musician do you consider yourself right now? Circle one number:

   From beginner 1 2 3 4 5 To professional

8. What state do you consider yourself to be primarily from, the state with which you most identify: _____

VITA

Brian Harris was born in Pikeville, Tennessee, to the parents of Carl Wendell and Yvonne Harris, and has one older sister. He attended Rigsby Elementary, Rhea Central Elementary, and graduated from Rhea County High School in Evansville, Tennessee, in 1997. He began studying piano at age 8 with the prominent pianist, Jean Booth of Dayton, TN. After graduation, Brian went to Lee University and in 2001 he completed a Bachelor of Music Education degree with an emphasis in piano under renowned pianist Michael Brownlee. Brian serves as the Minister of Music and pianist for a local congregation. In August 2001, he began working for the Meigs County Board of Education in Decatur, Tennessee as the vocal music teacher for grades 6 through 12. During his tenure at Meigs, Brian graduated with a Master of Music in Performance degree in piano from the University of Tennessee at Chattanooga in 2007, in which he studied with Steinway Artist, Dr. Sin-Hsing Tsai. He also studied several semesters with concert pianist/professor, Fay Adams at the University of Tennessee at Knoxville. Brian finished his Master of Music Education degree with a concentration in Music Education under the direction of music education historian, Dr. William R. Lee.