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PARENTAL AND PERSONALITY FACTORS THAT PREDICT STUDENTS' LENGTH OF PIANO STUDY

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THERESA CHARDOS CAMILLI
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PARENTAL AND PERSONALITY FACTORS THAT
PREDICT STUDENTS' LENGTH
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A DISSERTATION APPROVED FOR THE
SCHOOL OF MUSIC

BY

_____
Dr. Jane Magrath, Chair

_____
Dr. Charles Ciorba, Co-Chair

_____
Dr. Roland Barrett

_____
Dr. Jeongwon Ham

_____
Dr. Paula McWhirter

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ABSTRACT

The current study was designed to determine if interrelationships existed among the following variables: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' extraversion, (g) students' work drive, and (h) months of piano study. This study also determined which aforementioned variables best predict individuals' months of study. Parental and student demographics were also reported.

Students (*N* = 108) who studied piano for at least two years in duration and were enrolled in private piano studios were sampled. Data were collected utilizing the following testing instruments: (a) a researcher-generated *Parental Involvement in Piano Study* scale, (b) the *Parenting Style Questionnaire* (Paulson, 1994), (c) the *Adolescent Personal Style Inventory* in combination with work drive items (Lounsbury, Tatum, Gibson, Park, Sundstrom, Hamrick, & Wilburn, 2003), and (d) a researcher-generated *Demographic Questionnaire For Parents*.

Correlations beyond the .01 level of significance were found between the following variables: (a) months of piano study and parental behavioral support, (b) months of piano study and parental personal support, (c) parental behavioral support and parental personal support, and (d) parental behavioral support and parental cognitive support. Correlations beyond the .05 level of significance were found between: (a) months of piano study and

parental cognitive support, (b) months of piano study and demanding parental style, (c) parental cognitive support and parental personal support, (d) parental personal support and demanding parenting style, and (e) parental personal support and work drive.

Results from a simultaneous multiple regression revealed behavioral parental support, cognitive parental support, personal parental support, and parental demandingness were statistically significant predictors of numbers of months of piano study. Supported by the current research findings, specific strategies related to parental support are provided within Chapter Five. Teachers can share these suggested behaviors with parents. Based upon the integration of these strategies, parents will feel empowered to enhance their child's music education.

CHAPTER I

INTRODUCTION

Student retention in music programs is an ongoing issue for music educators. Researchers have shown a positive relationship exists between length of study and musical aptitude, musical achievement, intelligence, and attitudinal measures (Frakes, 1984; Hallam, 1998; Young, 1971). However, researchers have not exhausted the study of relationships between nonmusical predictive variables. For example, a student's home environment, defined by interaction between the parent and student, also should be considered when investigating length of piano study. If educators and parents are cognizant of specific factors that predict retention, intervention strategies to retain students could be developed.

Researchers who study musical behaviors of children often highlight case studies of those who choose to pursue a musical career or aspire to accomplish a high degree of proficiency, instead of studying children who choose to play music as a hobby (Austin & Vispoel, 1992). Researchers typically have focused upon understanding the decisions and behaviors of accomplished musicians (Bloom, 1985; Csikszentmihalyi, Rathunde, & Whalen, 1993; Evans, Bickel, & Pandarvis, 2000; Freeman, 1991; Ruthsatz, 2000). This preoccupation with high-achieving musicians suggests that

research conducted with professional musicians is more important than studying those who choose not to pursue a career in music. In order to better understand influences that potentially affect students' decisions and behaviors associated with continuing music instruction, researchers must focus on examining music students of various abilities and the environments in which they live.

Findings from formal research directed toward students' retention and attrition, as associated with piano study, could contribute to the development of instructional strategies and to the understandings of parental influences. Therefore, the principal objectives of the current study were focused on identifying and determining the length of piano study as related to the following variables: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parenting style, and (e) students' personality traits. Since many settings, instructional expertise, and parental conditions emerge when referencing "piano study," as associated with the variables listed above, an attempt to apply forms of standardization in subject selection was important. Therefore, the current study was directed toward students studying privately from teachers who were members of the Music Teachers National Association (MTNA).

Foundations

Researchers have found substantial relationships between length of music study, musical achievement, intelligence, and attitudinal measures (Frakes, 1984; Hallam, 1998). Furthermore, researchers have examined the impact of nonmusical factors on music study, such as students' relationships with peers and other individuals. Many of these studies have been directed toward examining the role of the teacher impacting students' musical achievement (Asmus, 1987; Austin & Vispoel, 1992; Costa-Giomi, Flowers, & Sasaki, 2005; Davidson, Moore, Sloboda, & Howe, 1998; Duke, 1999; Siebenaler, 1997). Although research lends attention toward the role of parents impacting students' learning, studies specific to parent-student interactions in the field of music education are sparse. Thus, a void exists in research literature pertaining to interactions between parents and students, especially as associated with continuation of piano study.

Parental Influences Reported From Educational Research

Researchers have documented the parental role as related to influencing the thought processes and behaviors of elementary through high school-aged students. Prominent areas of study include academic achievement (Asmus, 2006; Fan & Chen, 2001; Harris & Goodall, 2008), motivation (Gonzalez-DeHass, Willems, & Doan Holbien, 2005; Grolnick & Ryan, 1989; Grolnick & Slowiaczek, 1994), school attendance (Haynes,

Comer, & Hamilton-Lee, 1989), and dropout (Rumberger, Ghatak, Poulos, Ritter, & Dornsbusch, 1990).

The breadth and depth of published research findings confirms the need for parents to be involved with students' academic development. Although educational researchers have provided strong evidence which confirms the importance of parents assuming an active role within student learning, few researchers have explored this relationship within the field of music.

Variables Affecting Students' Interest in Continuing Piano Study

Among researchers who have studied areas of parental affect, Grolnick and Slowiaczek (1994) concluded that parents are a multidimensional factor influencing student learning. These results are in contrast to music researchers who have considered parents in a unidimensional manner (Brand, 1985; Cooper, 1996; Zdzinski, 1996). Furthermore, research has shown that parents are capable of providing three classifications of support: (a) behavioral, (b) cognitive, and (c) personal. Behavioral support is defined as parents participating in children's school and home activities (Grolnick, Benjet, Kurowski, & Apostoleris, 1997). The second type of parental support is termed cognitive and is demonstrated when parents expose children to intellectually stimulating activities (Grolnick et al., 1997). Personal support, the third category, is defined as "knowing

about and keeping abreast of what is going on with the child in school" (Grolnick et al., 1997, p. 538). Although researchers have studied and published findings concerning academics, the relationships between students and parents have yet to be fully explored within the field of music.

Not only was the type of parental support of interest in the current study, so was the relationship that existed between the parent and student as determined by parenting style. Parenting style was investigated according to the following four categories: (a) authoritarian, (b) authoritative, (c) permissive, and (d) unengaged (Baumrind, 1991a). Baumrind classified these categories according to levels of demandingness and responsiveness displayed by the parent. According to Baumrind, authoritarian parents are demanding and not responsive, while authoritative parents are demanding and responsive. Permissive parents are more responsive than they are demanding. Unengaged parents are neither demanding nor responsive (Baumrind, 1991a). Demandingness is described as parents expecting obedience without explanation and closely monitoring student behavior. Responsiveness is displayed by supportive parental behaviors (Baumrind, 1991a).

Students' personality traits were the final variable. Personality was assessed and derived from the *Five Factor Model* (*FFM*), long recognized in the field of psychology as a categorization of human personality traits of agreeableness, conscientiousness, neuroticism, extraversion, and openness.

Researchers believe this set of personality traits affects behavior (Costa & McCrae, 1987; De Raad, 2000; Wiggins & Trapnell, 1997). Considering students' personality traits as they interact with the other variables is intended to help educators personalize their teaching approach according to individual students.

Music researchers have not delineated behaviors and types of support concerning parental involvement into variables as explained by Grolnick and Slowiaczek (1994). Researchers within the field of music typically place all three types of support under a factor titled "parental involvement" or "home environment" (Brand, 1985; Cooper, 1996; Zdzinski, 1996). The following section will detail research literature related to each of the following parental support variables: (a) behavioral, (b) cognitive, and (c) personal as outlined by Grolnick and Slowiaczek (1994). The chapter, "The role of the family in supporting learning" found within *The Psychology of Music* (Creech, 2009), was used as a guide for the subsequent section's organization. This writer also used Grolnick and Slowiaczek's three types of parental support to present related literature concerning parental involvement in the field of music. Research concerning the remaining two variables, parenting style and student personality traits, will then be reported.

Parents' Behavioral Support Documented in Music Research

Grolnick and Slowiaczek (1994) stated, "the parent can overtly

manifest involvement through his or her *behavior*" (p. 238). These researchers considered parents' active participation modeled their value for the particular activity in which they are involved with their child. Chaperoning concert trips or supervising home practice sessions are examples of parents displaying behavioral support.

Researchers have revealed that parental involvement, specifically supervision of practice, positively influences music student's achievement, student attendance, and continued attendance (Davidson, Howe, Moore, & Sloboda, 1996; Doan, 1973; Graziano, 1991; Zdzinski, 1996). Behavioral support is an integral aspect of music achievement as evidenced when parents monitor home practicing. However, the age at which students benefit from parental behavioral support is not clearly defined. Sullivan (1975) was unable to find a significant relationship between parental involvement and achievement among high school band and orchestra students. Although Sullivan's research focused on instrumental students, the findings suggest length of piano study should be considered when studying parental influences.

Regarding the impact of parental behavioral support upon length of study, researchers have found a lack of parental behavioral support to be a reason for which students choose to discontinue music lessons (Martignetti, 1965). According to Martignetti, when faced with challenges or difficulties, almost 50% of beginning band or orchestra students chose to drop out

instead of persevere. Research generally supports the premise that parents' behavioral support impacts student retention.

Beyond the work of Graziano (1991) and Martignetti (1965), few music researchers have targeted the interactions of parents and students as influencing length of study. Specifically concerning the piano, research on parents as associated with students' length of piano study is not found in current research (Creech, 2009). Therefore, research is critically needed to appropriately address students and parents' respective influences, specifically parental support and parenting style, on continued piano study in the 21st Century.

Parents' behavioral support was assessed within the current research by the *Parental Behavioral Support in Piano Lessons* (*PBSPL*) measure. Questions and format were modeled after the *Parent-Home Interaction Questionnaire-Child Report* (Grolnick & Slowiaczek, 1994). Student participants answered 11 questions pertaining to their parents' involvement in private lesson activities. Each item was rated on a scale from 1 (*always*) to 5 (*never*).

Parents' Cognitive Support Documented in Music Research

Parents who introduce students to intellectually stimulating tasks in the home or provide appropriate learning materials are considered to be supporting students cognitively (Grolnick & Slowiaczek, 1994). Attending

professional concerts with their children and discussing career options are examples of parental cognitive support. Students appear to benefit from this type of parental support, as evidenced by the following summaries of research.

Parents of highly accomplished students typically display high levels of cognitive support (Sloane, 1985; Csikszentmihalyi et al., 1993). These researchers investigated students in many different domains, from music to athletics. Csikszentmihalyi et al. documented the following parental actions as providing cognitive support to talented teenagers: (a) establish standards for completion of tasks, (b) encourage productive use of time, and (c) provide lessons, materials, and challenging opportunities. Graziano (1991) concluded that parents who model and communicate their values, such as perseverance, assist in developing similar values within their children.

Parents can also provide cognitive support to their children by providing resources in the home. Doan (1973) stated that children of parents who owned recordings and a metronome obtained significantly higher achievement scores than students whose home environment did not contain these items. Gates (1989) reported band and orchestra students partook in music study for a longer duration than students whose home environment did not contain these listed items.

Research presented thus far supports the premise that parents should communicate their values with children and provide necessary learning

materials as evidenced by the positive repercussions upon student learning. Although research has been conducted with instrumental music students (Doan, 1973; Gates, 1989), quantitative research concerning piano students' length of study and cognitive support from parents is sparse.

For the present study, parents' cognitive support was assessed within the current research by the *Parental Cognitive Support in Piano Lessons* (*PCSPL*) measure, which is modeled after the *Cognitive Involvement-Child Report* (Grolnick & Slowiaczek, 1994). Student-participants answered six questions pertaining to their parents' cognitive engagement in private lesson activities. The six items were rated on a scale from 1 (*always*) to 5 (*never)*.

Parents' Personal Support Documented in Music Research

Parents' personal involvement is explained as the parent providing affective experiences to children (Grolnick & Slowiaczek, 1994, p. 239). Personal parental support can be manifested through children believing parents care for the field of music and enjoy musical interactions. Student achievement is one such benefit of personal parental support as presented in the following research.

Researchers have reported mixed results concerning personal parental support. Researchers found low or non-significant relationships between: (a) parental attitude toward music, (b) musical activity in the home, and (c) student retention (Klinedinst, 1991; Svengalis, 1978). However, other

researchers have found a positive relationship exists between parental attitudes toward music, music achievement (Brand, 1985; Doan, 1973; McPherson, 2009), and positive student ratings of piano lessons (Cooper, 1996). McPherson and Davidson (2006) reported that personal parental support is critical for children's musical success. Parents provide positive personal support when showing interest in what the child is learning within their music lessons. Conversely, parents can extend negative influences by withholding personal support. Martignetti (1965) reported one reason students decided to discontinue instrumental lessons was attributed to parents not liking the instrument. Wolfe (1969) also stated that parental conflicts with the child were cause for instrumental student dropout.

Parents' personal support was assessed within the current research by the *Parental Personal Support in Piano Lessons* (*PPSPL*) measure. The *PPSPL* was modeled after the *Personal Involvement-Child Report* (Grolnick & Slowiaczek, 1994). Questions were adapted to be relevant for the private piano studio setting. Student-participants rated the truthfulness of nine statements on a scale from 1 (*highly agree*) to 5 (*highly disagree)*.

Although research exists pertinent to length of study, published research reports are limited in number and breadth, often not pertaining to piano study. Therefore, this void justifies the need for research addressing piano study duration and influences of personal support from the parent.

Parenting Style

The relationship between the child and parent also is of concern as the type of parenting style has been correlated with motivation levels, school dropout, and achievement within educational psychology research (Baumrind, 1991a; 1991b; Dornsbusch & Ritter, 1988; Rumberger et al., 1990). According to these researchers, children of authoritative parents are considered to be more intrinsically motivated and self-reliant as opposed to children of authoritarian parents who are extrinsically motivated, withdrawn, and often discontent.

The four types of parenting style vary according to levels of demandingness and responsiveness displayed by the parent (Baumrind, 1991a). Currently, there is no research within field of music that specifically assesses parenting style. However, parenting style is relevant to the current research, as correlations could exist between the parents' role in supporting the child and the child's motivation to continue piano study.

Parenting style was assessed using the *Parenting Style Questionnaire* (*PSQ*) (Paulson, 1994). Students rated 60 statements on a five-point response scale. Thirty items addressed maternal parenting style, and thirty items assessed paternal parenting style. The level of parental demandingness versus responsiveness was reported in order to determine the type of parenting style: (a) authoritarian, (b) authoritative, (c) permissive, and (d) unengaged. The internal consistency (Cronbach's alpha) for the

statements assessing demandingess was reported to be α = .78 (maternal) and α = .84 (paternal). Cronbach's alpha for the responsiveness statements was reported to be α = .84 (maternal) and α = .87 (paternal).

Personality

The personality of performing musicians has been extensively researched (Bell & Creswell, 1984; Bourke & Francis, 2000; Builione & Lipton, 1987; Davies, 1978; Dyce & O'Conner, 1994; Kemp 1981a; Kemp, 1981b; Kemp, 1981c). Kemp's (1996) research is often regarded as the most comprehensive in regards to the profiling of musicians' personality (Cribb & Gregory, 1999). In a summary of research on personality, Kemp (1996) suggests three traits are common to all musicians: (a) introversion, (b) pathemia (sensitivity and imagination), and (c) intelligence. String players tended to score high in emotional stability on personality tests, whereas brass players exhibited a tendency to score high on extraversion (Cribb & Gregory,1999; Marchant-Haycox & Wilson, 1992). Less research has been conducted concerning the personality of pianists, however.

Music researchers have utilized many personality inventories. Cattell's *Sixteen Personality Factor Questionnaire* (*16PF*) (Kemp 1981a) and the *High School Personality Questionnaire* (*HSPQ*) (Bell & Creswell, 1984), are instruments found in personality studies. Furthermore, the *Eysenck Personality Inventory* (*EPI*) is another commonly utilized instrument, which

measures three personality traits: (a) neuroticism (emotional stability), (b) psychoticism (impulse control), and (c) extraversion (Bourke & Francis, 2000; Cribb & Gregory, 1999; Davies, 1978; Marchant-Haycox & Wilson, 1992; Wills, 1984). The *Five Factor Model* (*FFM*) has gained consensus among psychologists for its utilization of verbal descriptions of individual personality differences (Funder, 2001). However, music researchers have not often utilized the *FFM*.

The *FFM* includes personality traits identified and classified as the following: (a) agreeableness, (b) conscientiousness, (c) emotional stability (formerly neuroticism), (d) extraversion, and (e) openness. W.T. Norman (1963) condensed 1,431 factors into the five factors currently and commonly used in personality research. The personality traits that comprise the *FFM* are defined at the end of this chapter. Researchers have provided evidence of the *FFM's* usefulness as a foundation on which to build a better understanding of personality traits (De Raad, 2000; Digman, 1997; Wiggins & Trapnell, 1997). These factors have been found to remain stable characteristics of human personality traits throughout life (Rothbart, Ahadi, & Evans, 2000).

Lounsbury, Tatum, Gibson, Park, Sundstrom, Hamrick, and Wilburn (2003) developed and validated a questionnaire through a series of eight studies that was constructed specifically for adolescents, Resource Associates' *Adolescent Personal Style Inventory* (*APSI*). Resource

Associates also provided the researcher with questions assessing work drive, which were utilized within the current study. The study's personality inventory was therefore comprised of 54 questions and required approximately ten minutes to administer (see Appendix F). Lounsbury et al. (2003) stated the reliability coefficients for the *APSI* and work drive items, ages 10 through 18, range from $r = .80$ to $r = .85$. Due to the length, age demographic, reliability, and validity, the *APSI* was utilized in the current research.

Purpose Statement

Although parental support has been considered with regard to music study, the influence of parental support upon length of piano study has not been extensively researched. The purpose of this research, therefore, was to survey current piano students who have studied piano for a minimum of two years and determine what principal variables might emerge to predict length of piano study. Students participating in piano festivals, defined as events that provide comment sheets instead of competitively ranking participants, and whose teachers are members of city-affiliated chapters of MTNA were sampled. The following variables were examined as potential predictors of length of study: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parenting style, and (e) students' personality traits. Multiple regression was applied to determine if a predictive

relationship existed between the aforementioned factors and length of piano study.

Defining the relationship between length of piano study and parental support can elucidate Grolnick and Slowiaczek's theory of parental support and provide suggested practices that piano teachers can employ in their studios. What type of parental support is most effective with which parenting style and student personality as associated with retaining student motivation to study piano? The current study was designed to define these potential relationships.

Need for the Study

Researchers who have studied the behaviors of band, orchestra and piano students have identified the ages of 12 through 17 as the interval when students are most likely to end their formal musical participation (Cooper, 1996; Frakes, 1984; Gates, 1989; Hoffer, 1980; Lawrence & Dachinger, 1967). However, the literature also shows if students participate in music during high school, they will more likely engage in music-making as adults (Frakes, 1984; Lawrence & Dachinger, 1967). Apart from the research of Cooper (1996) and Lawrence and Dachinger (1967), these early studies focused on band and orchestra students. Additional research is needed to better understand musical participation and determine if this trend also applies to piano students of the 21st Century.

Faber (2003) interviewed 17 adults who, after studying piano in their youth, no longer took piano lessons. One-hundred percent of the adults interviewed expressed appreciation for learning piano skills in their early years. Furthermore, Faber found that these individuals independently worked to continue their piano skills and were interested in re-enrolling in lessons. Empirical results from carefully designed studies are intended to provide piano teachers and pedagogues with information that may be used to develop more efficient and productive teaching interventions in order to increase length of piano study. Parental support and parenting style are factors that parents can seemingly manipulate; therefore, attention and investigation, regarding implications upon student motivation to study music, are justified.

Research Questions

1. What are the parent and student demographics as reported by the *Demographic Questionnaire For Parents (DQFP)*?
2. What interrelationships exist among the following variables: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parenting style, (e) students' personality traits, and (f) length of study?
3. Which of the following variables best predicts individuals' length of piano study: (a) parental behavioral support, (b) parental cognitive

support, (c) parental personal support, (d) parenting style, and (e) students' personality traits?

Delimitations

The students' perceptions of parental involvement were investigated. Parents can make the decision for students to discontinue lessons. However, the perceptions of the parents are not considered within this research. The perceptions of students are most important as students have traditionally made the decisions to discontinue music lessons, not the parents (Cooper, 1996). Additionally, according to Grolnick and Slowiaczek (1994), the child must actively perceive the parents' involvement in order to receive the influence of this interaction.

Definitions

Agreeableness – Agreeableness relates to an interpersonal relationship based upon cooperation and amiableness (Lounsbury & Gibson, 2009). Agreeable persons choose to minimize disruption during conflict episodes (Jensen-Campbell & Graziano, 2001).

Conscientiousness – Conscientiousness includes rule-following behavior, being trustworthy and striving to honor commitments (Lounsbury & Gibson, 2009).

Extraversion – Guilford and Braly (1930), two of the first individuals to research traits of personality, provided a Jungian understanding of

extraversion. According to Jung, extraversion is evidenced by traits of outgoingness, proceeding into the unknown with abandoned confidence, and particularly interested in people and events.

Emotional Stability – Affect and emotional control define Emotional Stability (Peabody & Goldberg, 1989). Additionally, resilience and one's ability to adjust to diverse conditions defines Emotional Stability (Lounsbury & Gibson, 2009).

Openness – Openness can be understood as embodying imagination, intellect and autonomy (Peabody & Goldberg, 1989). Additionally, these individuals are prone to seeking new ideas and experiences (Lounsbury & Gibson, 2009).

Parenting Style – McPherson (2009), who also investigated the role of parents within the child's music study, defined parenting style according to Darling and Steinberg (1993). Parenting style can be understood as the "constellation of attitudes toward the child that are communicated to the child and that, taken together, create an emotional climate in which the parent's behaviors are expressed" (Darling & Steinberg, 1993, p. 488).

Work Drive – Work drive is defined as the following: "Disposition to work hard and for long hours, investment of one's time and energy into job and career, and being motivated to extend oneself, if necessary, to finish projects, meet deadlines…and achieve job success" (Lounsbury & Gibson, 2009, p. 7).

Summary

Within the current research literature on students who discontinue piano lessons, no single factor emerges to explain students discontinuing music participation (Hallam, 1998). The point at which students decide to stop taking lessons is not predictable, nor are the factors that lead to this decision clearly identified. The current study was designed to gain a better understanding of the factors influencing students to make the often-regrettable decision to discontinue piano lessons. The results are intended to enlighten music teachers, educators, and parents by providing empirical data that will increase understandings of music students' attitudes, motivations, and behaviors during early years of piano study. Conclusions from this research may enhance the literature and provide knowledge that can have an effect on teachers' ability to provide more viable instruction resulting in an increase in students' length of music study and extend musical participation throughout life.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Evidence concerning the circumstances that predict students' success or failure in music lessons is lacking (Sloboda & Howe, 1991). However, researchers suggest students' social environment could provide the needed impetus for commitment to music study (Sloboda, 1989; Sloboda & Howe, 1991). Biographical details propose parents comprise an important, early role in many professional musicians' lives. Therefore, the parental component of a students' social environment was the focus of the current research. Parents often assume the supportive role of music teacher, as the cellist Yo-Yo Ma (Blum, 1989), Beethoven, and Mozart (Colvin, 2008) experienced. These young student-musicians were additionally expected to unquestioningly obey their authoritarian parents (Blum, 1989).

Conversely, biographical sources of successful musicians report parents exhibiting alternative parenting styles from those viewed as authoritarian and displaying different types of supportive roles. Sosniak (1985; 1990) conducted 24 interviews of young, professional pianists and their parents. Fifty percent of the parents were not involved with music until their child began studying music. Sosniak reported that regardless of these

parents' backgrounds, they acted positively toward music study and highly supported their children's musical development. Therefore, questions emerge regarding circumstances and relationships wherein a musician parent and a non-musician parent affect a successful music student. What are the specific parental behaviors that positively influence students who study piano?

Understanding the relationships that exist among parental support, parenting style, student personality, and length of piano study was the focus of the current study. Researchers have examined potential nonmusical influences, such as students' relationship with peers and other individuals, upon musical study. However, most of these investigations have targeted the teacher's role influencing student achievement (Asmus, 1987; Austin & Vispoel, 1992; Costa-Giomi, Flowers, & Sasaki, 2005; Davidson, Moore, Sloboda, & Howe, 1998; Duke, 1999; Siebenaler, 1997). Current research is needed to enhance knowledge about the relationships and interactions between parent and piano student. The following review of educational psychology and music education literature illustrates the need for further research.

Teacher Influence Upon Music Study

Teachers' influence upon students' decision to discontinue music lessons has been explored. Davidson, Moore, Sloboda, and Howe (1998)

examined the relationship between 257 instrumental music students' level of achievement and the students' perceived characteristics of their teachers. Participants were between the ages of 8 and 18 years old who had studied at least one music instrument.

Five student groups were formed reflecting different levels of musical achievement. Students were assigned to a group and then interviewed by one of the investigators. Questions were asked about the following aspects of children's musical life: (a) formal and informal practice on each instrument learned, (b) children's perception of the role of music in their life, (c) characteristics of first and last teachers according to seven bipolar scales, (d) dates when they changed teachers on each instrument, and (e) reasons they changed each teacher. More successful learners, defined as continuing music study compared to children who ceased music study, rated their first teachers as displaying greater personal dimensions such as friendliness. Successful students also rated their current teacher higher on task-oriented professional dimensions such as "pushiness" and playing ability. These same students typically studied with more teachers than the other learners. Additionally, successful learners generally received more private instruction, as opposed to group teaching, than students who eventually discontinued lessons. Davidson et al. (1998) concluded that a student in an early stage of musical development needs personal characteristics of teachers to be considered, such as friendliness. Conversely, if an advanced student is

studying music, teachers' professional qualities appear to hold greater value to students' interest when studying their instrument.

Music research in general tends to favor the study of band and orchestra instrumentalists as participants. However, piano studios differ in that the educational setting is likely to be a one-on-one, student-to-teacher condition. Since piano students learn their instrument in a different environment than ensemble instrumentalists, additional research focused on piano students' attitudes needs to be conducted. Further research should ascertain if factors found within instrumental studies pertain to piano studies or if unique factors exist in the one-on-one piano studio when investigating length of study.

Costa-Giomi, Flowers, and Sasaki (2005) studied behavioral differences between students who eventually discontinued piano lessons compared to students who continued studying piano. Teachers' behaviors towards the various students were also monitored. The three researchers videotaped first-year lessons of 14 pairs of piano students, observed, and then recorded the duration or frequency of selected student and teacher behaviors. Each pair was judged as possessing comparable initial pianistic ability and achievement. Each pair contained one student who continued lessons for three years, and one child who discontinued lessons during the first or second year. The same teacher worked with each pair. Several characteristics were found among students who discontinued lessons.

Dropouts elicited verbal cues and sought approval from the teachers more often than students who continued piano study. The dropouts, however, received fewer actual approvals from the teachers, although the differences were not significant. Children who discontinued lessons also tended to accomplish goals established by the teacher less often. Dropouts also obtained significantly lower scores on the end-of-the-year piano examination as compared to the student-peer who remained in lessons for three years ($p < .01$). The results indicated there were observable behaviors in first-year piano lessons and traits displayed by the teacher that distinguished children who continue from those who discontinue piano lessons. What traits or behaviors do parents display that influence students' length of piano study? Although research relevant to parents' role within music education is lacking, a review of educational psychology literature provides evidence that parents play a crucial role within students' education.

Parental Role

Parental Influences Reported from Educational Research

Parents influence the thoughts and behaviors of elementary through high school-aged students including academic achievement (Asmus, 2006; Fan & Chen, 2001; Harris & Goodall, 2008), motivation (Gonzalez-DeHass, Willems, & Doan Holbien, 2005; Grolnick & Ryan, 1989; Grolnick & Slowiaczek, 1994), school attendance (Haynes, Comer, & Hamilton-Lee,

1989), and dropout (Rumberger, Ghatak, Poulos, Ritter, & Dornsbusch, 1990).

Educational researchers have provided evidence of the positive effect that parental involvement has on students' academic achievement (Fan & Chen (2001) for a meta-analysis review; Freeman, 1991). Within the field of music, researchers who have investigated parental involvement also utilize achievement as an outcome to assess the benefits of parental involvement (Zdzinski, 1996). The current research studied parental involvement using a measurement in contrast to an achievement score. Length of piano study was measured. The focus upon length of piano study, as opposed to an achievement score, can be supported by motivational research conducted over the past several decades that focuses upon mastery goal orientation. Individuals may sustain the motivation to learn if the goal is to master concepts, as opposed to being compared by means of achievement or performance scores (Dweck, 1986).

Not only are the processes that explain the relationship between parents and motivational student outcomes not commonly studied, the relationship is not well understood (Wentzel, 1998). Literature from education journals provides evidence that supportive parental relationships are associated with interest and success in school (Connell, Spencer, & Aber, 1994; Freeman, 1991). Gottfried, Fleming, and Gottfried (1994) also

documented that supportive parental relationships correlated with developing children's intrinsic motivation for continuation within academic courses.

Although educational researchers have provided strong evidence that parents actively pursue a role within student learning, few researchers have explored the parent-student relationship regarding piano lessons. Additionally, previous research has provided a unidimensional assessment of parental involvement concerning students' musical actions and decisions (Connell, Spencer, & Aber, 1994; Freeman, 1991; Gottfried, Fleming, and Gottfried, 1994; Zdzinski, 1996).

Defining Parental Involvement

The operational definition of parental involvement is inconsistent among researchers (Fan & Chen, 2001). Parental involvement has been defined by various behaviors and parenting practices within educational psychology research. For example, Bloom (1980) defined parental involvement according to parents conveying academic aspirations to their children. Harris and Goodall (2008) believe parents who encourage studying within the home demonstrate their involvement. Other researchers reported parents' participation in school activities as defining parental involvement (Stevenson & Baker, 1987). However, parental involvement should be differentiated according to precise parental behaviors in order to better

understand the many aspects of the relationship between parent and student. This alludes to the premise that parental involvement is a multidimensional construct. To gain a better understanding of the parents' role within research, parental involvement was defined as multidimensional within the current study.

Grolnick and Slowiaczek (1994) examined and supported a multidimensional construct of parental support in children's schooling. Three hundred students, ages 11 through 14, participated. The results from factor analysis supported the following three parental support dimensions, as described in Chapter I: (a) behavioral, (b) cognitive, and (c) personal. The proceeding portion of Chapter II differentiates parental involvement found within music research into these three types of support. Research within the field of music is reviewed under each type of parental support.

Parents' Behavioral Support Documented in Music Research

Parental behavioral support at a foundational level can be understood as supporting children through attending important events related to the subject (Grolnick & Slowiaczek, 1994). In reference to music, parents project behavioral support by overt actions, such as attending concerts or monitoring practice. Researchers suggest this type of parental support leads to positive educational outcomes (Macmillan, 2004; Martignetti, 1965; Zdzinski, 1996).

The following two researchers investigated length of music study and parental support. Martignetti (1965) interviewed 35 elementary students who discontinued music lessons, their parents, and 56 music educators representing 114 schools throughout Bergen County, New Jersey. These students comprised 50% of the first-year class enrollment. The researcher requested participants to complete questionnaires in order to ascertain the factors influencing the decision to discontinue music study. Music educators stated a lack of parental involvement, specifically assisting the student at home, was a factor that resulted in students' decision to discontinue music study. Music educators reported that when elementary instrumental students faced challenges or difficulties, if they did not have supportive parents, they discontinued lessons. Therefore, lack of behavioral support was determined to be a reason for student dropout from instrumental, public school group lessons.

Farruggia (1969) also examined factors that influenced students' decision to discontinue band and orchestra membership. Farruggia compared 204 students from two small-town high schools to 230 students from two large, city high schools. The city and town high school groups were defined according to the community's population as gathered from the United States population census (1960). The findings included data relevant to the type of behavioral support a parent can provide. Parents of students who continued to participate in the large-city high school ensemble were

significantly more acquainted with the music director (χ^2 = 3.880). Parents stated they met the director most often at a school concert.

Macmillan (2004) researched children's piano education by means of interviewing the parent, child, and teacher to determine attitudes toward parental involvement. Teachers were asked to report the following: (a) their background, (b) their students' background, (c) the involvement of parents within lessons, (d) their encouragement of parents in practice sessions, and (e) their students' motivation for and enjoyment of playing the piano. Twenty parents, one represented for each student, were asked the following questions: (a) their child's musical environment, (b) communication with the teacher and attendance at lessons, (c) assistance with the child's at-home practicing, and (d) their assessment of their child's motivation for playing the piano. The twenty students were asked similar questions: (a) their musical environment, (b) parental attendance at their piano lessons, (c) parental assistance with practice, and (d) their enjoyment of playing the piano. The results obtained from this study suggested that teachers need to encourage parents to attend lessons and help with at-home practice, or it is unlikely parents will initiate the effort. In fact, nine parents reported that teachers encouraged the parents not to help with students' practicing. The correlation between parental involvement and student enjoyment was not significant. Many parents did not attend lessons because they did not want to intrude

upon their child's interaction with the teacher. Additionally, children reported comments such as the following: "I don't like other people to hear mistakes" and "I would get a bit embarrassed in front of them" (Macmillan, 2004, p. 300). As a result of the research surveyed, it is apparent that students, parents, and teachers must be in agreement of the shared roles in order to positively impact the child's development.

Sloboda and Howe (1991) interviewed successful instrumental and piano students and their parents. Success was defined as students' ability to be admitted to a competitive music school. Forty-two students, ages 8 through 18, were interviewed as well as 20 parents. The parents displayed behavioral support. Seventy-four percent of the parents either attended the music lessons or spoke regularly with the teacher and received feedback about the lessons. It appears evident from these findings, successful students have parents who take interest in their progress.

Zdzinski (1996) was interested in determining if there was a relationship between parental involvement and various outcomes of instrumental achievement at different age levels. Public school band students (N = 406) in Grades 4 through 12 served as the participants. Although Zdzinski was interested in many outcomes related to performance achievement on instruments, only those outcomes pertinent to the current research are reviewed. Students completed the *Parental Involvement Measure* (*PIM*) designed to examine the frequency of parent participation

and the degree of parental involvement with a five-point Likert-type scale format. Zdzinski created this measurement tool in 1987. Students' affective outcomes were also assessed. Zdzinski suggests that students benefitted from parental involvement, regardless of age level. However, the relationship between parental involvement and affective outcomes increased in strength as participants' age increased, with the strongest relationship at the senior grade level. These findings are in contrast to Zdzinski's previous study (1992) when he found the link between parental involvement and musical achievement to be weak. The only significant parental involvement relationships were reported to occur at the secondary level and the strongest at the high school level. Involvement was defined as a list of parental actions, such as listening to student practicing and attending concerts. Placing Zdzinski's research within only one of the categories of parental support is impossible to complete since various items on the list of parental actions could be categorized under all three types of support. However, it is important to glean from Zdzinski's research that parents possess the ability to positively affect the attitudes of instrumental students.

Doan (1973) investigated the relationship between parental involvement and performance ability of 647 seventh and eighth grade violin students. Among many questions asked about parental involvement in the student's violin lessons, those questions pertaining to parental behavioral support were related to practicing. Parents were asked to report if they

assisted with their child's at-home practice sessions and if they listened to their child's at-home practice sessions. A correlation was found between parents listening to practicing and students' performance ability.

Parents' Cognitive Support Documented in Music Research

Parental cognitive support is demonstrated when parents expose children to intellectually stimulating activities (Grolnick, Benjet, Kurowski, & Apostoleris, 1997) or provide appropriate learning materials (Grolnick & Slowiaczek, 1994). Smith (1991) concluded that adolescents, seventh and ninth grade students, will be more inclined to agree with parents' educational aspirations if parents model similar cognitive ideals, such as college attendance. Smith concluded students may be cognitively motivated to share parents' goals if communication between the parent and adolescent is present.

In support of Smith's research, but specific to piano students, Graziano (1991) concluded parents who model and communicate their values, such as perseverance, assist in developing similar values within their children. Perseverance was encouraged through parental flexibility and adapting to children's goals and needs, such as finding a new piano teacher as opposed to discontinuing lessons.

Cognitive support is evident among parents of highly accomplished students (Sloane, 1985; Csikszentmihalyi, Rathunde, & Whalen, 1993).

Csikszentmihalyi et al. (1993) interviewed 208 teenagers, including pianists, to determine factors that contributed to their high-level of accomplishment. The following parental behaviors related to cognitive support were prevalent among the interviewed students: (a) encourage productive use of time, (b) provide lessons, (c) materials and challenging opportunities, and (d) establish standards for completion of tasks.

Regarding standards for completion of tasks, Davidson, Howe, Moore and Sloboda (1996) reported that parents who were cognitively involved with their children fostered the highest achieving instrumental students in their sample. Davidson et al. (1996) reported that parents who attended lessons and communicated with teachers were able to create home practice sessions containing clear goals. These interactions enabled parents to formulate achievable and appropriate goals during at-home practicing. Parents, therefore, provided a rewarding practice session since students were able to achieve the stated tasks. Davidson et al. believed young musicians typically experience difficulty in developing efficient practice strategies. Parents' display of cognitive support was motivating for these younger students who had yet to independently establish practice routines. Older students did not benefit from parental support relative to their practice sessions at home.

Parents can also cognitively support children by providing resources in the home. Doan (1973) stated that children of parents who owned recordings and a metronome obtained significantly higher achievement scores than

students whose environment did not contain these items. Gates (1989) conducted a meta-analysis review of parental support among band and orchestra students to determine factors prevalent among students who discontinue music participation. Overall, band and orchestra students participated in music study for a longer duration than students whose home environment did not contain LP records.

Parents' Personal Support Documented in Music Research

According to Asmus (1987), if parents are interested in music, students will perceive this personal interest as reciprocally supporting their musical study. However, grade level appears to influence students attributing parental support as a source of motivation. Asmus sought to determine what effect grade level influences students to participate in music ensembles. Subjects for the investigation were 248 high school students enrolled in choral and instrumental performing ensembles. Students completed two questionnaires. The first questionnaire was comprised of 35 items with a four-point Likert-type scale used for responses. Each of the items was structured to determine attributions of success or failure in music. The second measurement, 21 items in length, assessed the magnitude of student motivation upon music study. These items were relevant to the current research in a manner that assessed students' background such as having music run in the family and having musical parents. Asmus concluded that

family background was stated as a reason for success to a greater extent by ninth graders than by students of higher grade levels. The influence of parental personal support upon student motivation, therefore, may have a tendency to decrease with students' age.

The following research is also related to students' age impacting the need for parental support. Evans, Bickel, and Pendarvis (2000) interviewed teachers, parents, and students identified as gifted. Students who participated in the research were attending a summer camp for the fine arts. The researchers were interested in the perspectives concerning musical talent and whether individuals considered talent to be innate or acquired. Students attributed their ability to inborn talent. Additionally, students reported that parents discouraged their musical development. Parents shared the opposite belief pattern. Parents considered their children to have ordinary levels of talent, and students' accomplishments could be attributed to family encouragement. Teachers stated students' ability could be attributed to innate talent, hard work, and schooling. The researchers confirmed that parents do not project a significant role to high achieving individuals, who credit their own characteristics as influencing their development. According to these results, a parents' role may not be as significant in motivating the student once the student has achieved a high level of skill, as alluded to by Asmus (1987).

Freeman (1974) assessed successful music students to determine which factors, specifically family support, motivate talented children. Music teachers provided a list of talented students who ranged in ages from 7 through 11. Thirty-six selected students were matched with children not considered to possess musical talent, but who had identical age, sex, social class, and intelligence. Students completed the following tests: (a) the *Wing Standardized Tests of Musical Intelligence*, (b) the *Raven Colored Progressive Matrices* test, (c) a verbal fluency test constructed for this research, and (d) two other music tests constructed for this research to assess aesthetic discrimination and audiation ability. Parents completed a questionnaire regarding the medical history of the child, details of parental aspiration, feelings about their own education, family activities, and an assessment of the home. Freeman produced a total of 121 variables from the testing and questioning. Fifty-four variables were subjected to factor analysis. A factor pertinent to parental motivation emerged. Freeman discovered that children's musical ability was related to strong home opportunity and incentive to play music (accounting for five to six percent of the variance). Comparisons between the parental questionnaires showed that the talented children lived in an environment that provided incentive, materials, and encouragement in the field of music. Freeman reported parents effectively influenced children by their own involvement and attitudes. Therefore, results from this research indicated parents who personally support their child's

music education may serve as positive, motivational factors who encourage their children to continue music study.

Dai and Schader (2001) interviewed parents of 203 students who were enrolled in pre-college programs or youth orchestra. From fourteen questionnaire statements, parents were asked to select the five items perceived to be the most important reasons for their support. Dai and Schader were assessing parents' intrinsic and extrinsic reasons for supporting their child's music lessons. The majority of students were studying violin, viola, cello, or piano, with a varied level of training. Researchers discovered that parents emphasized intrinsic rewards, rather than extrinsic rewards pertinent to music study. Intrinsic rewards included examples such as appreciation of the aesthetic qualities of music or enrichment of inner life. Results suggested that beliefs relating to intrinsic benefits are perceived to be the most powerful motivational force influencing parental support. Students studying the fine arts, including music, reported that intrinsic goals were associated with positive performance and emotional outcomes (Lacaille, Koestner, & Gaudreau, 2007).

Bonifati (1998) interviewed nineteen families to determine which aspects of the home environment influence success in instrumental music instruction. Public school teachers provided the researcher a list of 155 successful students in 4th through 12th grades from three New York counties. Participants were asked to complete a researcher-generated

survey. The researcher selected nineteen families to interview from the one-hundred returned surveys. This qualitative research suggests the parental variables most influential to student success were parental concerns, encouragement, and support. Parents' musical background or listening to music were an important aspect of the home environment, but not as crucial as verbal praise. As mentioned previously, listening to music is a means by which parents display personal support for the field of music. However, Bonifati's research suggests that there are different behaviors within personal support that could be more advantageous than others. Bonifati's research can possibly be integrated with Dai and Schader's (2001) findings. If parents were to encourage or support the student's intrinsic motivations, the child musician may be more likely to experience satisfaction in music lessons and maintain his or her enrollment.

The following researchers were interested in students' perception of the parental relationship. Band students in ninth grade were the focus of the following research. Corenblum and Marshall (1998) examined students' intentions to continue studying music. Through utilizing structural equation modeling, Corenblum and Marshall were able to separate the factors that influence student retention. Perceived parental support for the music program emerged as a factor. The following hypothesis concerns parental personal support: "Socioeconomic level should predict students' outside musical interests and their perceptions of their parents' attitudes; both of

these variables should, in turn, predict intentions" (Corenblum & Marshall, 1998, p. 131). Students were asked the following question regarding their perception of their parents' attitudes: "My parents like the idea that I play in band" (Corenblum & Marshall, 1998, p. 131). Upon analysis, the researchers discovered socioeconomic level indeed predicted perceived parental support ($\beta = .79$) and this latter variable predicted intention to enroll in band the following year. These findings suggest music educators should encourage parents to openly communicate with their children since children's persistence to study band may be influenced by parental personal support.

Martignetti (1965) also investigated the children's perception of parental attitude towards instrumental lessons. Martignetti (1965) interviewed elementary children who had discontinued public school music programs. Twenty-six percent of children reported their parents did not like their instrument choice. These findings suggest teachers should screen parents and students together, in order to develop a compromise when selecting an instrument for music study.

In a study involving piano students, Cooper (1996) asked adults to complete questionnaires to determine, among many factors of interest, their perceptions of home influences upon childhood participation in private piano study. Children who studied piano during their youth reported their parents supported music study and had positive attitudes toward music study. Over 75% of the participants ($n = 309$) stated that their parents provided the

impetus to study piano. Additionally, adults who studied piano as children reported having fathers with “very positive” attitudes toward music; those who did not study music as children had fathers that were “indifferent” to music study (Cooper, 1996, p. 111). Cooper concluded that the home environment was a significant factor in perception of skill and ratings of lessons for participants who enrolled in piano as children. However, Cooper did not investigate whether a relationship existed between length of study and the parental role.

In similar methodology, Howe, Davidson, Moore, and Sloboda (1995) conducted research that enabled them to gain retrospective data. The participants (*N* = 257) were children ranging from 8 to 18 years of age at the time of the interviews. Children who had ceased playing their instrument were compared to high achievers. The high achievers’ success was based upon entrance to a specialty music school. The structured interview format involved questioning both children and their parents. Questions were asked about many aspects of the child’s musical life. Questions pertinent to the current study ascertained the parental role in practice and lessons. Data revealed high achieving students experienced a greater degree of musical input from their parents and were younger in age when they first sang as compared to those who had ceased playing. Parents of high achievers also tended to initiate the following musical behaviors significantly earlier: (a) listening to music together and (b) providing musical toys. Since parents

displayed these behaviors from an early age, this presupposes the argument that parents were simply responding to early exceptional signs and simply encouraging these behaviors. Additionally, parents of high achievers were not self-reported musicians. Instead, parents stated they enjoyed listening to music, not creating music. Listening to music for enjoyment increased as their child began musical study. The researchers concluded that parents of high achievers created a musical environment that stimulated the early onset of singing in the high achievers. These parents also illustrated their value and support for music as they committed to listening to more music, thereby increasing their involvement with music. Parents of students who stayed engaged with music lessons provided personal support for the fostering of musical development.

When perusing music education journals, it is typical to find researchers often measuring outcomes of parental impact by means of student achievement. This form of assessment is understandable as achievement is more tangible to measure than motivation. However, it may be revealing to study factors that motivate children to achieve. Although limited research is available, it is crucial to study and understand the relationship between parents and young musicians' motivation to continue studying piano. Utilizing the instrumentation mentioned below will elucidate the parental impact upon pianists' continuation of piano study.

Instrumentation

Grolnick and Slowiaczek (1994) designed the *Parent Involvement Scales* (*PIS*) to determine if parental support could be defined according to the following dimensions: (a) behavioral, (b) cognitive, and (c) personal. Grolnick and Slowiaczek concluded the three dimensions were relatively independent. Parents' behavioral support can be understood as participating in activities at school and at home. Parents who expose children to intellectually stimulating activities or discussions illustrate cognitive support. Personal support is "knowing about and keeping abreast of what is going on with the child in school" (Grolnick et al., 1997, p. 538). These three types of parental support were measured within the *Parent Involvement Scales*. The subscales assessing behavioral, cognitive, and personal parental support are listed below.

The *Parent-School Interaction Questionnaire - Child Report* has 12 questions, which assess children's perceptions of their parents' behavioral support at school and at home. Children rate how often their mother engages in activities assessing behavioral support on a four-point scale from 1 (*never*) to 4 (*a lot*). Grolnick et al. (1997) chose to have mothers as the focus of the questions as mothers are considered to be more involved in children's schooling (Grolnick & Slowiaczek, 1994). The *Cognitive Involvement - Child Report* has five questions that assess the degree the mother engages in cognitive activities. Children rate the frequency with which they engaged in

activities with their mother on a scale from 1 (*never)* to 4 (*a lot*). Parental personal support was assessed with the *Personal Involvement – Child Report*. Children rated the truth of six statements on a scale from 1 (*not at all true)* to 4 (*very true*). The reliability coefficients for the child report portions of the *Parent Involvement Scales* range from α = .66 to α = .91. The *PIS* is used as the model for the current measurement, the *Parental Involvement in Piano Study* (*PIPS*) scale. The *PIPS* has three subscales measuring each type of parental support, as modeled after Grolnick and Slowiaczek's (1994) *PIS* having subscales for each type of parental support.

The *Parental Behavioral Support in Piano Lessons* (*PBSPL*) has 11 questions that assess students' perceptions of their parents' behavioral support at school and at home (see Appendix A). Students rate how often their parents engage in activities on a five-point Likert-type scale from 1 (*always*) to 5 (*never*). The *Parental Cognitive Support in Piano Lessons* (*PBSPL*) has six questions which assess students' perceptions of their parents' cognitive support on a five-point Likert-type scale from 1 (*always*) to 5 (*never*) (see Appendix B). The *Parental Personal Support in Piano Lessons* (*PBSP*) has nine questions which assess students' perceptions of their parents' personal support of piano lessons (see Appendix C). Students rate the truthfulness of nine items on a Likert-type scale from 1 (*highly agree*) to 5 (*highly disagree)*.

Summary

Although researchers have examined causes of student dropout, a review of literature indicates a need for additional research specific to piano students and reasons for deciding to continue study. The research documented above has several shortcomings. First, the current research literature primarily pertains to band students and ensemble environments. Piano lessons are unique in that most students have one-on-one contact with their teacher. Most lessons take place in a private studio, not a classroom. Additionally, inquiry concerning the relationships between student retention and nonmusical factors such as the role of the parent has not thoroughly been studied.

The current body of music research previously detailed has focused primarily on musical achievement as opposed to students' length of study. Since most students are not concerned with becoming a performer, but rather are attempting to gain musical independence (Duke, Flowers, & Wolfe, 1997), understanding factors that affect the music students' decision to continue piano study deserves attention. The current study is designed to investigate possible factors that predict length of study.

Parenting Style

Parenting style has been suggested to influence children's accomplishments (Baumrind, 1989; Csikszentmihalyi et al., 1993). Baumrind

(1967, 1971) is an educational psychologist who defines parenting styles according to four categories: (a) authoritarian, (b) authoritative, (c) permissive, and (d) unengaged. Baumrind defines demandingness as the following: “the claims parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts and willingness to confront the child who disobeys” (1991a, p. 61). Responsiveness is defined as, “the extent to which parents intentionally foster individuality, self-regulation, and self-assertion by being attuned, supportive, and acquiescent to children’s special needs and demands” (Baumrind, 1991a, p. 62).

High levels of demandingness and low levels of responsiveness are associated with authoritarian parenting style (Baumrind, 1991a). Authoritarian parents display little warmth, nurturance, and are strict disciplinarians (Marchant, Paulson, & Rothlisberg, 2001). High levels of both demandingness and responsiveness are characteristic of authoritative parenting style (Baumrind, 1991a). Authoritative parents are defined as exhibiting the following behaviors: “firm discipline practices that foster self-regulatory behavior and by high levels of warmth and nurturance” (Marchant et al., 2001, p. 506). Permissive parents are associated with high levels or responsiveness and low levels of demandingness (Baumrind, 1991a). The last category, unengaged parents, are defined as being neither demanding nor responsive.

Authoritative parents have children who are higher in academic achievement and performance than authoritarian or permissive parents (Baumrind, 1967; Baumrind, 1971; Dornbusch & Ritter, 1988; Grolnick & Ryan, 1989). The two defining characteristics of these parental styles is level of responsiveness and demandingness as displayed by the parent. When examined separately, the characteristics of responsiveness and demandingess are related to positive achievement outcomes (Paulson, 1994).

Parenting Style Documented within Music Research

Davidson, Howe, Moore, and Sloboda (1996) found the highest achieving instrumental students in their sample had parents who were highly involved with at-home practicing. Parents who attended lessons and communicated with the teacher were able to create practice sessions that have clear goals. In addition, parents who were likely to follow rather than lead their child's musical development had the highest achieving students.

Howe, Davidson, Moore, and Sloboda (1995) determined the type of parenting style present among those who discontinued music lessons. The participants were 257 children, ages 8 through 18 at the time of the retrospective interviews. High achievers' success was based upon entrance to a specialty music school. The researchers interviewed both children and parents. Questions pertinent to the current study were regarding the roles of

parents in practice and lessons. Data revealed the high achieving students required less parental support over time. The high achievers became more autonomous in their work and had increased motivation towards practice. Conversely, immediately prior to discontinuing lessons, adolescent students received greater levels of parental involvement in lessons and practice. It was concluded that students who do not develop an internal locus of motivation by the early teenage years may find it difficult to persist in their musical development. Therefore, authoritarian parenting style among older students was not found to be conducive to students' motivation to continue music study. These findings are supportive of earlier research particular to music study and parenting style (Sloboda & Howe, 1991; Sloboda, 1996). In addition, Kemp (1995) provided evidence of this developmental pattern. Musicians during their early years of development are particularly dependent upon parents who instill strong working habits and conscientiousness. The higher achieving musician is characterized by a need for autonomy and a rejection of external forms of control.

Sloboda and Howe (1991) also illustrated the importance of parents' role in children's musical study. The researchers were interested to examine the aspects of 42 successful young musicians by means of interview. These students were identified as successful because of their ability to be admitted to a competitive music school. The aspect relevant to this study was concerning the parents' contributions to their child's musical development.

Twenty parents were also interviewed in a semi-structured format. The majority of parents (72%) were not engaged with music-making as adults. Even more counterintuitive, the students judged as exceptional among those sampled had parents who were on average less musically active than the average group ($p < .06$). Regardless of the parents' musical ability, the accommodation to support the child at a young age was the most important factor. Sloboda and Howe stated, "Many of the parents appear to have been aware of the need to maintain a balance between imparting too much pressure on a child to practice . . . when she was reluctant to do so, and adopting a *laissez-faire* approach . . . ." (Sloboda & Howe, 1991, p. 18). Students appear to depend upon an initial external source of motivation from the parent.

Instrumentation

The *Parenting Style Questionnaire* (*PSQ*) assessed parenting style according to the level of demandingness and responsiveness (Paulson, 1994). Students rated 60 statements on a five-point response scale. Half of the total statements assessed maternal parenting style. Paternal parenting style assessed the remaining 30 items. The level of parental demandingness versus responsiveness indicated the type of parenting style: authoritarian, authoritative, permissive, or unengaged. The internal consistency (Cronbach's alpha) for the statements assessing demandingess was

reported to be α = .78 (maternal) and α = .84 (paternal). Cronbach's alpha for the responsiveness statements was reported to be α = .84 (maternal) and α = .87 (paternal).

Summary

Hallem (1998) stated close supervision, although it could improve performance, may have detrimental effects on intrinsic motivation. Therefore, parents need to have a style of interaction that refrains from being perceived as controlling. As suggested through the reviewed literature, authoritative parenting style may stifle student's academic development and instrumental students' musical development. Continued research is needed to determine if these trends apply to parenting style within the private piano studio as it relates to students' length of study.

Personality

Kemp (1997) illustrates why personality theory is relevant to the current research through the following quote, "It may not be merely what these people can *do* that separates them from others, it may well prove to be the kinds of people that they *are*" (Kemp, 1997, p. 42). Investigating the relationships between personality and individual differences according to length of piano study will create new means of understanding students' motivational drives to partake in lessons.

Personality and Musicians

The personality of professional musicians has been well researched (Bell & Creswell, 1984; Bourke & Francis, 2000; Builione & Lipton, 1983; Davies, 1978; Dyce & O'Conner, 1994; Kemp 1981a; Kemp, 1981b; Kemp, 1981c). Kemp's summarized research (1996) suggests that three traits are common to all musicians: (a) introversion, (b) pathemia (sensitivity and imagination), and (c) intelligence. Although it is well documented that musicians tend to be introverted, musicians' introversion is manifested in a different form than that of the general population (Kemp, 1981b; Martin, 1976). Musicians tend to display the primary traits of detachment and self-sufficiency, but not of shyness or seriousness. Kemp suggests the work pattern established from the earliest stage of practicing accounts for musicians' self-reliance and detachment. Often long hours are spent practicing in self-imposed isolation. Therefore, Kemp describes the musician not as shy, but as resourceful and self-sufficient.

Additional personality traits have received attention in research literature. Openness, one of Costa and McCrae's Big Five factors (1992), relates to independence and curiousness. Kemp (1996) provides evidence that high achieving musicians are often profiled as independent. As documented above when discussing parenting style, less mature musicians tend to display dependency. Adult musicians tend to display emotional instability (Kemp, 1996; Wills & Cooper, 1988). However, research

concerning young students and degree of emotional stability is lacking. String players tend to score high in neuroticism on personality tests (Cribb & Gregory, 1999; Marchant-Haycox & Wilson, 1992). Less research has been conducted concerning the personality of pianists.

Personality and Pianists

Most personality research is conducted with band or orchestra students (Goeke, 1981; Kaplan, 1961). However, the limited amount of personality research pertaining to pianists provides a dichotomous portrait of these musicians. Researchers (Ben-Tovim & Boyd, 1990; Kemp, 1979 as sited in Kemp, 1996) found that young pianists, high school aged and younger, tend to be introverted and typically prefer being alone. Kemp (1979) provided results indicating that high school pianists are more shy than non-pianists.

Pianists in higher education emerge with a different personality profile. The students (N = 104) displayed significant tendencies toward being outgoing, group dependent, and conscientious (Kemp, 1981a). Parental involvement has been proposed as the possible factor explaining the personality shift in mature pianists (Kemp, 1995). Therefore, this intriguing research validates the action of further studies to be conducted in order to better understand pianists' personality.

Instrumentation

The Big Five dimensions enumerated by Costa and McCrae (1992) were utilized to measure participants' personality. The Big Five personality model contains the following traits: (a) agreeableness, (b) conscientiousness, (c) emotional stability, (d) extraversion, and (e) openness. This *Five Factor Model (FFM)* is a product of W.T. Norman's research that condensed Cattell's *16PF* into the model utilized within the current research (Norman, 1963). Debate continues over the most accurate structure of personality to utilize in personality studies. Both Eysenck (1992) and Cattell (1995) remain unconvinced that Costa and McCrae's research is valid and reliable. However, many researchers have provided evidence of the *FFM's* usefulness as a framework which to conceive personality traits (De Raad, 2000; Digman, 1997; Rothbart, Ahadi, & Evans, 2000; Wiggins & Trapnell, 1997).

Lounsbury, Tatum, Gibson, Park, Sundstrom, Hamrick, and Wilburn (2003) developed and validated a questionnaire through a series of eight studies that is based upon the *FFM* and constructed specifically for adolescents. Lounsbury et al. stated that the *FFM* has been utilized with adult populations, but a reliable and valid scale was needed for adolescent research.

A total of eight studies were conducted to establish the reliability of the Resource Associates' *Adolescent Personal Style Inventory* (*APSI*) ability to

measure the five personality traits. The first study evaluated the initial construction of the *APSI*. The reliability coefficient alphas ranged from *r* = .80 to *r* = .85. Validity was established through criterion-related validity using a middle school sample. Teacher ratings of the Big Five dimensions validated the *APSI* in the second study, which was also conducted with a middle school sample. The third study confirmed the validity of *APSI* utilizing factor analysis according to school grades, attendance, and behavior problems, and the fourth study established criterion-related validity for the same sample. Both the third and fourth studies had participants from middle and high schools. The fifth study confirmed the convergence of indicators of the *APSI* and the *Neuroticism Extraversion Openness-Five Factor Inventory* (Costa & McCrae, 1992). The purpose of the sixth study was analysis of construct validity, and the seventh study provided known-group comparisons. The final study illustrates inter-correlations and also lists descriptive statistics for the final version of the *APSI.*

Within the current study, work drive was also assessed in addition to the Big Five personality traits to determine whether the criterion-related validity of the Big Five variables could be improved. Resource Associates defined work drive as the following: “disposition to work hard and for long hours…and being motivated to extend oneself, if necessary, to finish project, meet deadlines…and achieve job success” (Lounsbury & Gibson, 2009, p. 7). As shared above, Kemp (1981b) described the

professional musician as resourceful and self-sufficient. Investigating whether a strong work ethic applies specifically to pianists, and pianists who are students as opposed to professionally proclaimed musicians, may provide enlightening knowledge upon pianists' personality profile. The reliability coefficient alpha for Resource Associates' work drive measure was reported at r = .81 (Lounsbury & Gibson, 2009).

Resource Associates sent the researcher of the current study a personality assessment, which included the *APSI* in addition to items assessing work drive. The following personality traits were thus measured: (a) agreeableness, (b) conscientiousness, (c) emotional stability, (d) extraversion, (e) openness, and (f) work drive. This personality assessment consists of 54 questions and requires approximately ten minutes to administer. Survey responses are provided on a five-point Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree)*. The survey items were validated for adolescents ranging in age from 10 through 18 years old. Due to its length, reliability, and validity, the Resource Associates' personality assessment was utilized within the current research.

Summary

Based on the review of research literature presented in the current chapter, evidence has been obtained supporting the premise that parental involvement within music lessons positively influences student achievement.

Despite these convincing studies, research has yet to be published regarding specific parental behaviors or actions in relation to length of students' piano study. Researchers tend to pose unspecific questions to parents or students relative to the exact type of parental support or encouragement provided. Knowledge regarding the precise ways in which parents provide support and thus contribute to student's length of study is still incomplete (Davidson et al., 1996). The interaction of students' personality in combination with parental support and parenting style has yet to be investigated.

Restatement of Purpose

The purpose of this research was to identify principal variables that may emerge as predictive factors estimating the length of piano study. Although researchers have examined the relationship between parents and music students in and under many conditions, researchers have not investigated the relationship of students' personality traits to both parenting style and parental support among piano students. Findings from formal research directed toward piano students' retention and personality traits could contribute to the development of instructional strategies and to the understandings of parental influences. Five variables were examined as potential predictors of length of piano study: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parenting

style, and (e) students' personality traits. Students enrolled in private studios and studying piano for at least two years were sampled.

CHAPTER III

PROCEDURES

Overview

The purpose of this research was to identify principal variables that may emerge as predictive factors estimating the length of private piano study among students. Although researchers have examined the relationship between parents and music students in and under many conditions, research focused on the study of piano students, parenting style, and specific types of parental support, as studied by Grolnick and Slowiaczek (1994), is not identified in the research literature. Findings from formal research directed toward piano students' retention could contribute to the development of instructional strategies and to the understandings of parental influences. Five variables were examined as potential predictors of length of piano study: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parenting style, and (e) students' personality traits. Students enrolled in private piano studios and studying for at least two years in duration were sampled.

The Study

Educational researchers confirm the academic advantage of parental involvement with student learning (Asmus, 2006; Fan & Chen, 2001; Harris & Goodall, 2008; Haynes, Comer, & Hamilton-Lee, 1989). However, few researchers have explored this relationship within the field of music.

Instruments Administered for Data Collection

A demographic questionnaire was developed and completed by one parent per child. A survey of demographic questionnaires that existed in the research literature produced 14 items that met the current research criteria. A panel of graduate music students with experience in questionnaire construction reviewed an initial list of 14 demographic questions to determine the clarity of questions and appropriateness of format, content, and wording. The questionnaire was revised according to suggestions provided by the panel. The questionnaire was then administered to parents of student-participants. Questionnaire items were primarily structured in closed-end format (see Appendix D).

Students completed a Questionnaire Packet comprised of the remaining assessment instruments detailed in Table 3.1.

Table 3.1
Instruments Administered During Data Collection

Demographics
Demographic Questionnaire For Parents (*DQFP*) (14 Items)
Parental Involvement
Parental Involvement in Piano Study (*PIPS*)
Assesses three types of parental support according to the following subscales of Behavioral, Cognitive, and Personal support:
Parental Behavioral Support in Piano Lessons (*PBSPL*) (11 Items)
Assesses Parental Behavioral Support
Parental Cognitive Support in Piano Lessons (*PCSPL*) (6 Items)
Assesses Parental Cognitive Support
Parental Personal Support in Piano Lessons (*PPSPL*) (9 Items)
Assesses Parental Personal Support
Parenting Style
Parenting Style Questionnaire (*PSQ*) (60 Items)
Assesses Parenting Style according to demandingness and responsiveness
Personality Traits
Resource Associates' personality assessment*: Adolescent Personal Style Inventory* (*APSI*) plus Work Drive items (54 Items)
Assesses the following traits: agreeableness, conscientiousness, emotional stability, extraversion, openness, and work drive

The *Parental Involvement in Piano Study* (*PIPS*) assessed parental support within the current research. The *PIPS* has three subscales measuring each type of parental support: behavioral, cognitive, and personal. The format, questions, and subscales were modeled after Grolnick and Slowiaczek's (1994) *Parental Involvement Scales* (*PIS*). The *PIS* wording

was rephrased to meet the criteria for piano lessons. Additionally, the number of test items was increased for each subscale.

Parents' behavioral support was assessed by the *Parental Behavioral Support in Piano Lessons* (*PBSPL*) subscale (see Appendix A). Student-participants rated 11 items on a scale from 1 (*always*) to 5 (*never)*. Parents' cognitive support was assessed within the current research by the *Parental Cognitive Support in Piano Lessons* (*PCSPL*) subscale (see Appendix B). Participants rated six items on a scale from 1 (*always*) to 5 (*never)*. Parents' personal support was assessed within the current research by the *Parental Personal Support in Piano Lessons* (*PPSPL*) subscale (see Appendix C). Participants rated the accuracy of nine items on a scale from 1 (*highly agree*) to 5 (*highly disagree)*.

Students' perceptions of parenting style were assessed utilizing a 60-item scale, *Parenting Style Questionnaire* (*PSQ*) (Paulson, 1994). Student-participants rated the items on a five-point response scale (see Appendix E). Demandingness and responsiveness was measured to determine the parental style: authoritarian, authoritative, permissive, or unengaged. "My mother usually wants to know where I am going" is a sample item measuring demandingness. "My mother expects me to tell her when I think a rule is unfair" is a sample item measuring responsiveness (see Appendix E).

Resource Associates' *Adolescent Personal Style Inventory* (*APSI*) was employed to determine adolescents' personality type as understood by the

following five traits: agreeableness, conscientiousness, emotional stability, extraversion, and openness. The personality trait of work drive was also included within Resource Associate's personality assessment. The Resource Associates personality assessment contains 54 statements using a five-point Likert-type scale format (see Appendix F). The reliability coefficients for the *APSI*, ages 10 through 18, range from $r = .80$ to $r = .85$. The reliability coefficient for work drive is $r = .81$ (Lounsbury & Gibson, 2009). The total time for completion of the student-participants' Questionnaire Packet was approximately 20 minutes.

Pre-Administration Procedures

Students enrolled in private studios throughout the Midwestern region of the United States and who studied piano for at least two years were sampled. The students' teachers were members of the city-affiliated chapters of Music Teachers National Association (MTNA).

The lead researcher developed an explanatory letter detailing the study and the requests for the city-affiliated MTNA chapters' participation. This letter was sent to chapters who organized piano festivals and awarded students comment sheets. Permission was sought from the Executive Committees of each MTNA chapter to attend their piano festival for purposes of administering the questionnaires (see Appendix G). Approval was obtained from the three Executive Committees to designate a data collection

room at each event site. The data collection room was within the building of the piano event, but in a separate room from the competition or festival to ensure privacy and a quiet atmosphere. Students were sampled from these one-day, MTNA piano events.

Procedures approved by the University of Oklahoma's Institutional Review Board were followed (see Appendix H). The data collection phase of the study was administered during the fall of 2009. Two individuals were designated as data collectors at each site because of the high number of parents and students anticipated to attend the piano events. The role of these individuals was strictly limited to administering and collecting parental consent and student assent forms, the *DQFP*, and student Questionnaire Packets. The sites where the lead researcher could not be present had two appointed individuals fulfilling these duties. These data collectors were provided a list of standardized procedures created by the lead research. These standardized procedures were followed at each data collection site, including sites where the lead researcher was present (see Appendix I).

The lead researcher asked each Executive Committee to provide email addresses of those teachers who have participating students in the respective piano event. A letter detailing the data collection process at the upcoming piano event was created. The letter was provided to the piano teachers via email. As explained within the letter, the piano teacher notified students who were participating in the piano competition or festival and their

parents that the event was selected as a research site (see Appendix J). This advance notice was expected to increase participation as students may be more motivated to volunteer having already been introduced to the research situation.

Administrative Procedures

The lead researcher developed a series of procedures. These procedures were reproduced and issued to individuals at the sign-in desk, the day of the piano event. Individuals checking in students at the registration desk followed this set of instructions in order to maintain standardization among the testing sites (see Appendix K). Students and their parents were solicited for their participation at the sign-in desk when they registered at the piano event. If the student and parent were interested in participating, slips of paper were provided with the data collection's room number. Students and parents were requested to report to the data collection room immediately following the student's performance.

Parental consent forms were signed prior to the student entering the data collection room (see Appendix L). Parents were asked to wait outside the data collection room at provided tables and chairs. Parents were asked to complete the 14-item *DQFP*; one parent per child completed this demographic questionnaire (see Appendix D). Parents had the option to

leave any questions blank and could choose to stop completing the *DQFP* at any point. Parents were invited to wait for their child.

The students were asked to sign the assent form indicating willingness to complete the Questionnaire Packet (see Appendix M). The completed assent form was stapled to the completed parental consent form. After completing the assent form, the students were allowed to enter the data collection room. The student was asked to sit at a desk. Questionnaire Packets and pencils were issued to the students. Questionnaire Packets included the following five assessment instruments: *PBSPL*, *PCSPL*, *PPSPL*, *PSQ*, and the *APSI.* A script was read to students explaining how to complete the questionnaires (see Appendix N). Students asked questions at any point during the data collection process. Students could choose to stop participating at any point during the research study and could choose not to answer specific questions.

All data was kept confidential as names were not written on questionnaires. Instead, the students' Questionnaire Packets were assigned a number that corresponded to the *DQFP*. The assent and consent forms were kept in a different location from the completed questionnaires to maintain anonymity. Upon completion of the Questionnaire Packets, students exited the data collection room.

Data Analysis and Reporting

SPSS 18.0 was used for all data analysis. Demographic information was extracted and tabled from the questionnaires for initial purposes of computing descriptive statistics. Cronbach's alpha was computed to establish reliability for all study measures. Correlations were calculated for the study variables: parental behavioral support, parental cognitive support, parental personal support, parenting style, and students' personality traits, and length of piano study. A multiple regression was computed to ascertain the contribution of predictor variables–parental behavioral support, parental cognitive support, parental personal support, parenting style, and students' personality traits–on the dependent variable, length of study. Parents reported length of study on the demographic questionnaire according to number of months students were enrolled in piano lessons. Results are reported in Chapter IV. Conclusions paired with a discussion of results in the context of current research are presented in Chapter V.

CHAPTER IV

RESULTS

Foundations of the Current Study

Purpose Statement

The primary purpose of the study was to determine which of the following variables best predict individuals' length of piano study: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parenting style, and (e) students' personality traits. Although previous research has addressed various relationships between parents and music students within many conditions, no one has combined these areas in order to predict piano students' length of study. The findings from this study are intended to assist in the development of piano pedagogical strategies and parental interactions within piano study. Students enrolled in private piano studios who studied for at least two years in duration were sampled. The researcher collected and analyzed data on the basis of the following research questions.

Research Questions

1. What are the parent and student demographics as reported by the *Demographic Questionnaire For Parents* (*DQFP*)?

2. What interrelationships exist among the following variables: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' personality traits, and (g) length of study?
3. Which of the following variables best predicts individuals' length of piano study: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' extraversion, and (g) students' work drive?

Descriptions of Testing Instruments

Data Collection Instruments

Data were collected using the following measures: (a) the researcher-generated *Parental Involvement in Piano Study* (*PIPS*) scale, (b) the *Parenting Style Questionnaire* (*PSQ*) (Paulson, 1994), (c) the *Adolescent Personal Style Inventory* (*APSI*) in combination with work drive items (Lounsbury, Tatum, Gibson, Park, Sundstrom, Hamrick, & Wilburn, 2003), and (d) the researcher-generated *Demographic Questionnaire For Parents* (*DQFP*). The *DQFP* was a survey based upon demographic questionnaires that existed in the research literature (see Appendix D). The *DQFP* was administered to parents of student-participants. The researcher modeled the

Parental Involvement in Piano Study (*PIPS*) scale after Grolnick and Slowiaczek's (1994) *Parent Involvement Scales* (*PIS*). In identical method to the *PIS*, the *PIPS* defined parental involvement according to the following types of support: (a) behavioral, (b) cognitive, and (c) personal. After completing a factor analysis of all *PIPS* items, eleven test items comprised the behavioral scale nine items comprised the cognitive scale, and six items comprised the personal scale. Students rated each parental involvement item on a five-point scale.

Parenting style was measured with the *Parenting Style Questionnaire* (*PSQ*) (Paulson, 1994). Students were asked to rate 60 items on a five-point response scale. Maternal parenting style was measured with the first 30 items, while paternal parenting style was assessed with the remaining 30 items. Specifically, the level of demandingness and responsiveness were measured with the *PSQ* (see Appendix E).

Lounsbury et al. (2003) designed and validated Resource Associates' *Adolescent Personal Style Inventory* (*APSI*) through a series of eight studies based upon the *Five Factor Model* (*FFM*) of personality. The *FFM* is utilized to categorize human personality in to the following traits: agreeableness, conscientiousness, emotional stability, extraversion, and openness. Researchers believe this set of personality traits may be related to how individuals choose to behave (Costa & McCrae, 1987; De Raad, 2000; Wiggins & Trapnell, 1997). The *APSI* was constructed specifically for

adolescents. The personality assessment used for the current study consisted of the *APSI* in addition to work drive items, for a total of 54 statements. All answers utilized a five-point Likert-type response scale.

For the current study, each test score was hand-entered into an Excel spreadsheet format. The data was then imported into SPSS 18.0 for Mac in order to perform the data analysis. A frequencies analysis was conducted for all data to check for incorrect data entry. Mean scores were substituted for missing data points in order to maintain the estimate of the population mean (Little & Rubin, 2002).

Reliability of Testing Instruments

Cronbach's alpha was utilized to determine the internal reliability of all measures including the subscales for the *PIPS*, *PSQ*, and Resource Associates' personality assessment (see Table 4.2). The internal reliability for the *PIPS* subscales ranged from .64 to .72. Due to the low internal reliabilities of the subscales, the items were analyzed using maximum likelihood factor analysis in order to determine alternative subscale groupings. Factor analysis was utilized to extract factors from the existing subscale items. The scree plot indicated three factors were present, in accordance with the initial three scales that comprised the *PIPS*. The three factors were then rotated using a Varimax rotation method. As illustrated in Table 4.2.1, these three constructs accounted for 13.96%, 9.66% and 9.32%

of the variance of the 26 items. In total, the three factors accounted for 32.94% of the variables' variance. The rotated solution is shown in Table 4.2.2. After examining the loaded items, the factors were named from the common type of parental support present within the statements: *Behavioral* (factor 1), *Cognitive Support* (factor 2), *Personal Support* (factor 3). The internal reliability for the *PIPS* subscales following the factor analysis ranged from .69 to .83. The overall reliability when combining the *PIPS* subscales into one scale measuring parental involvement was .84.

The *PSQ's* measures—mother's demandingness, mother's responsiveness, father's demandingness and father's responsiveness—ranged from .73 to .83. The current study did not utilize the levels of demandingness and responsiveness in order to determine the category of maternal or paternal parenting style—authoritative, authoritarian, permissive, and unengaged. The study did not have enough participants in order to accommodate the additional eight variables this categorization presented. Therefore, parental demandingness and responsiveness were investigated in order to explore parenting style within the current study. As parental gender was not a variable of interest to the current research, demandingness and responsiveness were combined across gender. Demandingness combined across gender of parent had a reliability coefficient of .80. Responsiveness combined across gender of parent had a reliability coefficient of .84.

The reliability coefficients for work drive and the personality subscales on the *APSI* ranged from .52 to .83. Only those personality traits that exceeded a reliability coefficient of .70 were used within the current data analysis. Therefore, extraversion (.70) and work drive (.83) were utilized in further data analysis. Reliabilities for each measure are reported in Table 4.1.

Table 4.1

Internal Reliability of Test Measures

Measure	Reliability
Parental Involvement in Piano Study (*PIPS*)	
Parental Behavioral Support in Piano Lessons (*PBSPL*)	.83
Parental Cognitive Support in Piano Lessons (*PCSPL*)	.69
Parental Personal Support in Piano Lessons (*PPSPL*)	.69
Parenting Style Questionnaire (*PSQ*)	
Demandingness	.80
Responsiveness	.84

Table 4.1 continued

Internal Reliability of Test Measures

Measure	Reliability
Resource Associates' personality assessment (*APSI* plus work drive)	
Agreeableness	.52
Conscientiousness	.63
Extraversion	.70
Emotional Stability	.56
Openness	.66
Work Drive	.83

Note. N = 108.

Table 4.2.1

Eigenvalues, Percentages of Variance, and Cumulative Percentages for Subscales of the Parental Involvement in Piano Study Scale

Factor	Eigenvalue	Percent of Variance	Cumulative Percent
Behavioral	3.63	13.96	13.96
Cognitive	2.51	9.66	23.63
Personal	2.42	9.32	32.94

Note. N = 108.

Table 4.2.2

Summary of Question Items and Factor Loadings for Varimax 3-Factor Solution

Questions	Factor Loading 1	2	3
Factor 1			
My parents help me at lessons by taking notes.	**.380**	-.135	.307
My parents help me with my practicing.	**.704**	-.186	.242
My parents help me prepare for recitals, competitions/festivals.	**.804**	-.194	.275
My parents help me plan time for my practicing.	**.573**	.041	.252
My parents listen to me practice.	**.465**	.180	-.019
My parents know what I am doing in piano lessons.	**.410**	.331	.143
My parents want to know about my piano lessons.	**.495**	.394	.168
My parents do a lot to help me do better in my piano lessons.	**.684**	.056	.157
My parents know when I have done well or need to work harder for my piano lessons.	**.344**	.099	.281
My parents and I sing and/or play music together.	**.431**	.314	.071
My parents usually know what pieces I am working on in lessons.	**.500**	.134	-.005
Factor 2			
My parents listen to music with me on the radio or on CDs.	-.002	**.458**	-.022
My parents talk about musical concerts, artists, or festivals with me.	-.023	**.532**	.168
My parents buy me piano books or CDs in addition to what I am studying in my piano lessons.	.024	**.364**	.131
My parents take me to concerts or musicals.	-.081	**.530**	.188
My parents go to my piano events (like competitions, festivals, recitals).	-.012	**.197**	.009
My parents ask me about what I did in piano lessons.	.433	**.503**	-.071
My parents are interested in my piano lessons.	.176	**.522**	-.015
My parents enjoy listening to me practice.	.079	**.364**	-.057
My parents enjoy listening to piano music on the radio or on CDs.	.124	**.457**	.070

Table 4.2.2 continued

Summary of Question Items and Factor Loadings for Varimax 3-Factor Solution

Questions	Factor Loading 1	2	3
Factor 3			
My parents talk to me about discipline and the importance of practicing.	.011	.191	**.848**
My parents talk to me about establishing goals for piano lessons.	.183	.196	**.533**
My parents come to my piano lessons.	.201	-.170	**.401**
My parents talk to my piano teacher before or after lessons.	.085	-.031	**.473**
My parents ask me if I practiced.	.188	.108	**.495**
My parents tell me how important piano lessons are.	.086	.255	**.495**

Note. Boldface indicates highest loading factors. Factor 1-Behavioral Support; Factor 2-Cognitive Support; Factor 3-Personal Support. *N* = 108.

Results of Research Questions

First Research Question

In order to answer the first research question, parent and student demographics were analyzed using descriptive procedures. Student participants were enrolled in grades 2 through 12 and studied piano privately in the Midwestern region of the United States. Nine participants did not provide information regarding their length of piano study and were subsequently eliminated from the study. The gender distribution of the student sample (*N* = 108) was 61.1% female and 38.9% male. Participants' ages ranged from 8 to 18 with the majority of participants ranging in age from 10 to 14 (66.6%) with a mean age of 12. Information regarding the age and grade level distribution of participants is provided in Table 4.3 through Table 4.4.

Table 4.3

Distribution of Student Population by Age

Age	Frequency	Valid Percent	Cumulative Percent
8	9	8.3	8.3
9	8	7.4	15.7
10	21	19.4	35.2
11	17	15.7	50.9
12	12	11.1	62.0
13	10	9.3	71.3
14	12	11.1	82.4
15	6	5.6	88.0
16	4	3.7	91.7
17	4	3.7	95.4
18	5	4.6	100.0

Note. N = 108.

Table 4.4

Distribution of Student Population by Grade Level

Grade	Frequency	Valid Percent	Cumulative Percent
2	3	2.8	2.8
3	7	6.5	9.3
4	12	11.1	20.4
5	21	19.4	39.8
6	15	13.9	53.7
7	12	11.1	64.8
8	8	7.4	72.2
9	15	13.9	86.1
10	5	4.6	90.7
11	3	2.8	93.5
12	7	6.5	100.0

Note. N = 108.

The majority of participants (72.2%) were elementary and middle school students (see Table 4.5). The majority of participants (80.5%) began private piano lessons between ages 5 through 8 (see Table 4.6). The mean age in which student-participants began piano lessons was age seven.

Table 4.5

Distribution of Student Population by Elementary/Middle/High School

School	Frequency	Valid Percent	Cumulative Percent
Elementary	43	39.8	39.8
Middle School	35	32.4	72.2
High School	30	27.8	100.0

Note. N = 108.

Table 4.6

Distribution of Student Population by Age Started

Age	Frequency	Valid Percent	Cumulative Percent
2	1	0.9	0.9
3	3	2.8	3.7
4	3	2.8	6.5
5	14	13.9	20.4
6	30	27.8	48.1
7	24	22.2	70.4
8	18	16.6	87.0
9	3	2.8	89.8
10	4	3.7	93.5
11	6	5.6	99.1
16	1	0.9	100.0

Note. N = 108.

Parents were asked if they currently play or have played an instrument in the past. Most parents (74.1%) affirmed the statement. An additional question utilized to further understand students who have studied piano for at least two years in duration concerned additional materials purchased for piano study. Student-participants were asked whether they owned a metronome. The majority of students (92.6%) owned a metronome. The decision to enroll in piano lessons was predominantly made by the parents (see Table. 4.7).

Table 4.7

Distribution of Student Population by Whose Decision to Begin Piano Lessons

Decision	Frequency	Valid Percent	Cumulative Percent
Parent	70	64.8	64.8
Child	29	26.9	91.7
Combined	9	8.3	100.0

Note. N = 108.

Participants were asked to indicate total months of piano study as measured from the child's first lesson. As reported in Table 4.8, participants have taken an average of 57 months of piano lessons.

Table 4.8

Distribution of Student Population by Months of Study

Number of Months	Frequency	Valid Percent	Cumulative Percent
24-29	15	13.9	13.9
30-35	6	5.7	19.4
36-42	19	17.5	37.0
43-49	14	12.9	49.9
50-56	7	6.5	56.5
57-63	12	11.1	67.6
64-70	2	1.8	69.4
71-77	10	12.3	78.7
78-83	1	0.9	79.6
84-89	4	3.7	83.3
90-95	2	1.9	85.2
96-101	8	7.4	92.6
102-107	1	0.9	93.5

Table 4.8 continued

Distribution of Student Population by Months of Study

Number of Months	Frequency	Valid Percent	Cumulative Percent
108-113	3	2.8	96.3
114-119	1	0.9	97.2
120-125	1	0.9	98.1
126-131	0	0.0	0.0
132-137	1	0.9	99.1
138-143	0	0.0	0.0
144-149	1	0.9	100.0

Note. N = 108.

When asked how many individuals live within the household, the answer reported with the highest frequency was four individuals living in the household (50%). The largest household reported was six individuals as reflected in Table 4.9. Three participants did not provide the number of people in the household.

Table 4.9

Distribution of Student Population by Number of People Living in Household

Number of People	Frequency	Valid Percent	Cumulative Percent
2	4	3.8	3.8
3	23	21.9	25.7
4	52	49.5	75.2
5	22	21.0	96.2
6	4	3.8	100.0

Note. N = 105.

The highest percentage of surveyed parents (24.5%) reported earning an income ranging between $75,000 and $99,000 but only higher by 1% than those earning between $100,000 and $124,000. The smallest percentage of parents (6.9%) reported earning an income of $25,000 and $49,000. Therefore, 79% of the participants reported earning an income greater than $75,000. The income distribution is reported in Table 4.10. Six individuals chose not to answer the question.

Table 4.10

Distribution of Student Population by Family Income

Income	Frequency	Valid Percent	Cumulative Percent
Less than 25k	0	0.0	0.0
25k-49k	7	6.9	6.9
50k-74k	14	13.7	20.6
75k-99k	25	24.5	45.1
100k-124k	24	23.5	68.6
125k-149k	11	10.8	79.4
Greater than 150k	21	20.6	100.0

Note. N = 108.

Second Research Question

The following section details the second research question, *What interrelationships exist among the following variables: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' personality traits, and (g) length of study?*

Pearson product-moment correlations were conducted between months of study and the variables listed (see Table 4.11). The correlations ranged from r = -.23 to r = .45. Correlations beyond the .01 level of significance were found between the following variables: (a) months of study and parental behavioral support (r = .26), (b) months of study and parental personal support (r = .27), (c) parental behavioral support and parental personal support (r = .45), and (d) parental behavioral support and parental cognitive support (r = .28) as illustrated in Table 4.11. Correlations beyond the .05 level of significance were found between: (a) months of study and parental cognitive support (r = -.21), (b) months of study and demanding parental style (r = -.22), (c) parental cognitive support and parental personal support (r = .22), (d) parental personal support and demanding parenting style (r = -.20), and (e) parental personal support and work drive (r = -.23) as illustrated in Table 4.11. Therefore, these meaningful relationships suggest parental support, parenting style and personality are significantly related to

length of piano study. Detailed projections upon these relationships will be discussed within Chapter V.

Table 4.11

Intercorrelations Between Months of Study, Parenting Style, and Personality

Variable	MOS	PBSPL	PCSPL	PPSPL	PSQ-D	PSQ-R	APSI-E	WD
MOS	-	.26**	-.21*	.27**	-.22*	-.06	-.06	-.05
PBSPL		-	.28**	.45**	-.12	-.09	-.10	-.17
PCSPL			-	.22*	-.14	-.15	-.17	-.18
PPSPL				-	-.20*	.13	-.12	-.23*
PSQ-D					-	-.04	.07	.14
PSQ-R						-	-.05	.03
APSI-E							-	.18
WD								-

Note. MOS = Months of Study; PBSPL = Parental Behavioral Support in Piano Study; PCSPL = Parental Cognitive Support in Piano Study; PPSPL = Parental Personal Support in Piano Study; PSQ-D = Parenting Style Questionnaire – Demandingness; PSQ-R = Parenting Style Questionnaire – Responsiveness; APSI-E = Adolescent Personality Style Inventory – Extraversion; WD = Work Drive. $N = 108$.
*$p < .05$, two-tailed. **$p < .01$, two-tailed.

Third Research Question

In order to answer the third research question, simultaneous multiple regression analysis was conducted to determine which of the following

variables best predict participants' length of piano study: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' extraversion, and (g) students' work drive. The seven independent variables combined to account for 27% of the variance in months of piano study. Accordingly, the overall multiple regression was statistically significant, $R^2 = .270$, $F(7,100) = 5.28$, $p < .01$. Results of the multiple regression analysis revealed that parental behavioral support ($p < .02$), parental cognitive support ($p < .001$), parental personal support ($p < .02$), and parental demandingness ($p < .02$) were statistically significant predictors of length of piano study (see Table 4.12). When analyzing the standardized betas, it was discovered that on average: (a) for each *SD* unit change in parental behavioral support, months of study increased by .23 of a *SD* unit, (b) for each *SD* unit change in parental cognitive support, months of study decreased by .37 of a *SD* unit, (c) for each *SD* unit change in parental personal support, months of study increased by .24 of a *SD* unit, and (d) for each *SD* unit change in parental demandingness, months of study decreased by .21 of a *SD* unit, once the other variables were taken into account. Therefore, these analyses suggest parental behavioral support, parental cognitive support, parental personal support, and parental demandingness are significant predictors of length of piano study.

Table 4.12

Summary of Simultaneous Regression Analysis for Variables Predicting Months of Study

Variable	*B*	SE	ß	*p*
PBSPL	9.55	4.08	.23	.02
PCSPL	-19.20	4.84	-.37	.001
PPSPL	8.72	3.62	.24	.02
APSI-E	4.98	3.42	.13	.15
WD	-3.16	3.29	-.09	.34
PSQ-D	-6.35	2.61	-.21	.02
PSQ-R	-3.76	2.50	-.13	.14

Note. PBSPL = Parental Behavioral Support in Piano Study; PCSPL = Parental Cognitive Support in Piano Study; PPSPL= Parental Personal Support in Piano Study; APSI-E = Adolescent Personality Style Inventory – Extraversion; WD = Work Drive; PSQ-D = Parenting Style Questionnaire – Demandingness; PSQ-R = Parenting Style Questionnaire – Responsiveness.
$N = 108$.
$R^2 = .270$, $F(7,100) = 5.275$, $p < .001$.

Summary

The first research question detailed the demographics of the population. Results from the *DQFP* illustrated parents largely make the choice to enroll students in piano lessons. Results also indicated the majority of participants have been enrolled in piano for an average of 57 months, and

age seven was the mean age participants began piano lessons. The majority of the students' parents (74%) played an instrument, as well.

The second research question investigated the interrelationships between the following variables: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' extraversion, (g) students' work drive, and (h) length of piano study. Length of study shared statistically significant correlations with parental behavioral support, parental cognitive support, and parental personal support. Correlations beyond the .05 level of significance were found between the following variables: (a) parental behavioral support and parental cognitive support, (b) parental behavioral support and parental personal support, (c) parental cognitive support and parental personal support, (d) parental personal support and demanding parenting style, and (e) parental personal support and work drive.

The final research question utilized multiple regression analysis to determine parental behavioral support, parental cognitive support, parental personal support, and parental demandingness were significant predictors of length of piano study.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Overview

Purpose Statement

The present research was conducted to determine what combination of parental behavioral support, parental cognitive support, parental personal support, parenting style, and students' personality traits best predicts length of piano study. No previous research exists pertaining to these nonmusical variables as predictors of length of piano study. It was determined that the following seven variables were to be examined as predictors of length of piano study: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' extraversion, and (g) students' work drive. Students who were enrolled in private piano studios and who studied for at least two years in duration were sampled (N = 108). The findings from this study are intended to assist in the development of piano pedagogical strategies and parental interactions as detailed below.

Research Questions

1. What are the parent and student demographics as reported by the *Demographic Questionnaire For Parents* (*DQFP*)?

2. What interrelationships exist among the following variables: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' extraversion, (g) students' work drive, and (h) length of piano study?
3. Which of the following variables best predicts individuals' length of piano study: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' extraversion, and (g) students' work drive?

Testing Instruments

Data were collected using the following measures: (a) the researcher-generated *Parental Involvement in Piano Study* (*PIPS*) scale, (b) the *Parenting Style Questionnaire (PSQ*) (Paulson, 1994), (c) the Resource Associates' personality assessment consisting of the *Adolescent Personal Style Inventory* (*APSI*) in addition to measuring work drive (Lounsbury, Tatum, Gibson, Park, Sundstrom, Hamrick, & Wilburn, 2003), and (d) the *Demographic Questionnaire For Parents* (*DQFP*).

The *DQFP* was a researcher-generated survey comprised of 14 items. Parents of student-participants were asked to complete the *DQFP*. Student-participants completed the remaining measures. The *Parental Involvement in*

Piano Study (*PIPS*) scale, modeled after Grolnick and Slowiaczek's (1994) *Parent Involvement Scales* (*PIS*), measured parental involvement according to three dimensions: (a) behavioral, (b) cognitive, and (c) personal. Eleven test items measured behavioral support, nine items measured cognitive support, and six items measured personal support. Students rated each parental involvement item on a five-point scale. Parenting style, specifically the level of demandingness and responsiveness, was measured with the *Parenting Style Questionnaire* (*PSQ*) (Paulson, 1994). Students rated 60 items on a five-point response scale. The Resource Associates' personality assessment was used for the current study, which consisted of the *APSI* plus items assessing work drive, a total of 54 statements (Lounsbury et al., 2003). Students rated each answer on a five-point Likert-type response scale. Cronbach's alpha was used to determine the reliability for all measures and their subscales. Descriptive statistics were calculated for the *DQFP* and the dependent and independent variables. A correlation analysis and simultaneous multiple regression analysis were then conducted.

Discussion and Conclusions

First Research Question

Descriptive statistics were utilized to answer the first research question: *What are the parent and student demographics as reported by the* Demographic Questionnaire For Parents (DQFP)*?* Data revealed piano

students from the Midwestern region of the United States who studied more than two years in duration and who participated in piano festivals were more likely to be female (61.1%) than male (38.9%). Additionally, the majority of piano students were between the ages of 10 to 14 with a mean age of 12. This age distribution was expected, as students tend to discontinue lessons as they progress in age (Cooper, 1996). Perhaps an older age demographic would have been present if the student-participants were selected from a setting that assumes greater musical accomplishment, perseverance, and commitment such as a piano competition, as opposed to a piano festival.

Results further indicated that 80.5% of the participants began private piano lessons between ages 5 through 8. This age range is younger than the age reported by Cooper (1996), whose participants most frequently cited beginning piano lessons from 6 through 12 years of age. Perhaps the current study illustrates a tendency for parents of the 21st Century to expose children at an earlier age to music lessons.

The majority of parents (74.1%) are either currently playing or have played an instrument in the past. These results suggest piano students who study more than two years in duration tend to have parents who personally were involved in music education. Survey results indicated that 92.6% of participants owned a metronome. As gleaned from this data, students who are persistent with length of study will likely have invested in tools that enhance their music education. This finding is supported by prior research,

which reported band and orchestra students who owned a metronome partook in music study for a longer duration than students who did not possess in a metronome (Gates, 1989).

The decision to enroll in piano lessons was predominantly made by parents or a combination of the parent and student, which is supported by prior piano research (Cooper,1996). Considering these same parents partook in music lessons, it is predictable that music education would be valued; therefore, children would be encouraged to enroll in lessons. These results also indicate students who do not initiate lesson enrollment may benefit from parents who manage the curricular decisions as indicated by students' extended length of study following the parental decision. Student-participants within the current research have studied for as long as 149 months.

When asked how many individuals live within the household, the answer reported with the highest frequency was four individuals (50%). These results are higher than the 2000 United States Census Bureau national statistics, which reported an average of 2.59 persons per household (2010). Forty-eight percent of parents reported earning an income ranging between $75,000 and $124,000. An additional 21% of participants reported an income greater than $150,000. This reported income is above the 2008 United States national median household income of $52,029 (United States Census Bureau, 2010). These are predictable results as private lesson enrollment places financial obligations upon a household.

Second Research Question

Pearson product-moment correlations were conducted to answer the second research question, *What interrelationships exist among the following variables: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental responsiveness, (f) students' extraversion, (g) students' work drive, and (h) length of piano study?* The dependent variable shared correlations with all three types of parental support and parental demandingness. Examining the direction of each correlation provokes curiosity.

Positive correlations beyond the .05 level of significance were found between parental cognitive support and parental personal support (r = .22). Positive correlations beyond the .01 level of significance were found between the following variables: (a) months of study and parental behavioral support (r = .26), (b) months of study and parental personal support (r = .27), (c) parental behavioral support and parental personal support (r = .45), and (d) parental behavioral support and parental cognitive support (r = .28). Negative correlations beyond the .05 level of significance were found between the following variables: (a) months of study and parental cognitive support (r = -.21), (b) months of study and demanding parental style (r = -.22), (c) parental personal support and demanding parenting style (r = -.20), and (d) parental personal support and work drive (r = -.23). According to these

results, it appears that as students' length of study increases, the need for cognitive support decreases, and behavioral and personal support increases.

Months of study were negatively correlated with parental demandingness as well. As students increase in the length of study, parents should therefore become less demanding. Parental demandingness was also negatively correlated with parental personal support. Parental personal support can be understood as the following: "knowing about and keeping abreast of what is going on with the child in school" (Grolnick et al., 1997, p. 538). Additional conclusions pertaining to parental demandingness will be discussed further within the regression analysis.

Work drive was negatively correlated with parental personal support as well. Along the same line of reasoning, as students develop an ethic of work drive, parental personal support may no longer be needed. Conversely, students whose parents did not display personal support may need to generate a strong work drive to combat the lack of perceived parental support.

Third Research Question

Simultaneous multiple regression analysis was conducted to determine which of the following variables best predict participants' length of piano study: (a) parental behavioral support, (b) parental cognitive support, (c) parental personal support, (d) parental demandingness, (e) parental

responsiveness, (f) students' extraversion, and (g) students' work drive. Results of the regression analysis revealed that parental behavioral support, parental cognitive support, parental personal support, and parental demandingness were statistically significant predictors of length of piano study. Parental personal support and parental behavioral support predict an increase in months of study, where parental cognitive support and parental demandingness predict a decrease in months of study.

Finding that a negative relationship exists between months of study and cognitive support, as opposed to all three types of support, creates intrigue. Perhaps students view cognitive support as inhibiting their independence, whereas behavioral and personal displays of parental support are perceived as less overt and perhaps encouraging. The need for less cognitive support is consistent with prior research (Howe, Davidson, Moore, & Sloboda, 1995; Sloboda & Howe, 1991; Sloboda, 1996), which revealed high achieving students required less parental support over time. High achievers may become more autonomous in their work and have increased motivation towards practice. Furthermore, students may perceive their knowledge in music to have exceeded their parents and therefore need less cognitive support.

However, according to the current data, as students' length of study increases, parental behavioral and personal support increases. These results are consistent with prior research among band and orchestra students that

found a lack of parental behavioral and personal support to be a reason students chose to discontinue music lessons (Martignetti, 1965; Wolfe, 1969). These findings are additionally aligned with literature from education journals, which provide evidence that supportive parental relationships are associated with interest in school, success in school, and developing children's academic intrinsic motivation for task continuation (Connell, Spencer, & Aber, 1994; Freeman, 1991; Gottfried, Fleming, and Gottfried, 1994).

Conversely, these results are in contradiction to researchers who found low or non-significant relationships between parental personal support, musical activity in the home, and student retention among ensemble instrumentalists (Asmus, 1987; Klinedinst, 1991; Svengalis, 1978). It appears that behavioral and personal support is beneficial for piano students. Perhaps ensemble instrumentalists receive needed personal and behavioral support from fellow music students and therefore, need less support from the parent. Piano students may gain more benefit from receiving parental support since practice sessions are conducted in solitary conditions typically absent of peer support.

Months of study were negatively related with parental demandingness, as well. This result aligns with prior research, which found a demanding parenting style was not conducive to students' motivation to continue music study (Howe, Davidson, Moore, & Sloboda, 1995; Sloboda & Howe, 1991;

Sloboda, 1996). Parents should be advised to decrease their level of demandingness as students increase in months of study. Demandingness is defined as the following: “the claims parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts and willingness to confront the child who disobeys” (Baumrind,1991a, p. 61). For example, a teacher should work in partnership with the parent to determine the child’s proper amount of daily practice time in order to ensure the parent is not placing an unrealistic expectation upon the child. In accordance with prior research, Hallam (1998) states close supervision, although it could improve performance, may have detrimental effects on intrinsic motivation. Supported by the current research, parents need to have a style of interaction that refrains from being perceived as demanding.

The three types of parental support and parental demandingness were determined to be significant predictors of months of study, although predicting both increases and decreases according to length of study. Therefore, it may be valuable for teachers, music educators, and parents to consider piano study from a new perspective. Parents are an integral aspect not only to a child’s academic education, but also to the student’s music education. Piano teachers should be encouraged to provide parents specific suggestions pertaining to the three dimensions studied: (a) behavioral, (b) cognitive, and (c) personal.

Parental Involvement Recommendations within Piano Studios

The following section will detail concrete parental involvement applications within mainstream independent piano studios based upon research findings. If a teacher perceives parents to be underestimating their ability to impact their child's musical education, it is the teacher's responsibility to encourage parents to become involved in feasible, specific, and meaningful ways. Parents need to be told the positive impact of their involvement upon student's length of study.

Providing Behavioral Support

Behavioral support is illustrated when parents participate in children's music activities outside and within the home. The following actions are tangible behaviors in which parents can provide behavioral support to positively effect students' length of study. Parents of young children and children up to approximately age 10 can attend lessons and write notes of the teachers' comments during lessons. These notes will assist the student to remember pedagogical points and thus, have focused practice sessions when practicing at home.

Parents should assist young students during their practicing. Parents should be provided general practice strategies to employ at home. In addition, parents can gain knowledge of specific strategies related to various pieces if they observe the lessons. Similar to students needing assistance to

learn how to efficiently practice, parents similarly need to learn how to practice with their child. Providing a typed, numbered list of general practice suggestions by the teacher could be useful.

Generally, as the student grows older, parents can provide behavioral support that fosters independence. For example, as a student grows older, it may not be appropriate for a parent to practice with the student. Instead, a parent can offer behavioral support by sitting in the room as the older student practices or by asking the student to play for them once or twice between lessons, for parental appreciation. The parent can encourage the student or comment on their material during their practice sessions. Parents can ask the teacher how they can assist the student in memorization or with concert or competition preparations. Parents may be able to provide needed encouragement and strategies learned from the teacher in order to make the task of memorizing manageable, successful, and ultimately enjoyable.

If parents play or have played an instrument in the past, the parent could be encouraged to play collaboratively with the student. The teacher could suggest repertoire leveled appropriately for the student and parent to play together, or provide pieces that could be utilized during sing-alongs for holiday or special occasions. Teachers could organize an informal, family concert where parents and students play duets.

Students need parental assistance in developing time-management skills. Practice time should be scheduled into the family's routine in order for

the student to establish a consistent time to practice each day. The parents could assist the student in creating an environment free of the following distractions: television, radios, electronic media, sibling interference, or any other visual or aural stimulation. Moving the piano to a room where few or none of these stimuli are possible is optimal. Creating a suitable environment will assist in developing the student's discipline to concentrate when engaging in self-directed tasks.

Providing Cognitive Support

A tangible means to provide cognitive support is providing necessary tools for the discipline. The data analysis did not detail which items were best rated to illustrate parental cognitive support. Although data analysis indicated cognitive support is not needed as length of study increases, every piano student needs a quality instrument to be maintained by a technician. The piano should only have musical scores or materials recommended from the teacher, such as a metronome, practice notes, and a pencil placed on its surface unless additional persons in the household are actively playing. An adjustable height bench should be part of the household as well, to insure proper sitting position for the student.

Providing Personal Support

Parents can provide personal support by staying attuned to the student's musical interests and development. Parents can also discuss their

appreciation of music and music education in an effort to personally support their children. When parents discuss the importance of piano lessons or assist the student to develop practice goals or long-term goals, the student perceives the parents' personal support of their music participation. Parents can engage in discussions such as asking the student their favorite composer, their favorite piece they are currently learning, or about the historical period of the piece studied. Talking about the students' level of appreciation and comfort with their current piano teacher could be beneficial. Parents can talk to the student about their feelings regarding an upcoming concert, competition, or piano event, as well.

Parents can also talk with teachers in scheduled appointments or by phone in an effort to stay abreast of the students' progress. Scheduling parent-teacher conferences once a semester could assist in open-communication of the student's progress, as well. If parents value lessons and model a strong work ethic, students will likely value lessons, in addition to developing appropriate work ethic behaviors.

Lastly, parents could participate in music events, as well. Volunteering at piano events, concerts, or competitions could illustrate parental personal support as the parent is taking time apart from their schedules to engage in music. Parents also can consider providing transportation for students attending competitions and festivals in distant locations.

Summary of Parental Support in Piano Lessons

Teachers should create a portion of their studio policies that addresses parental involvement. Specific behaviors, such as those stated above, should be shared. Guidelines listing the students' age and what time commitment is required for attending lessons and practicing at home should be communicated. Exceptions to these guidelines are inevitable as students' social, cognitive, physical, and mental development will factor into the support the teacher and parent deems necessary. However, providing guidelines will assist parents to know anticipated involvement if enrolled within a given studio. In general, it can be shared with parents, the younger the child, the more active the types of parental support is needed. If parents choose to practice these specific types of parental support, it may result in an increase in student's length of piano study.

Recommendations for Further Research

The sample used in this study indicated greater female participation than male participation. Investigating this gender discrepancy could be the focus of future research as it relates to piano enrollment and study. Future research could investigate the influence of gender as an additional variable predicting length of piano study. Gender can be added to a future regression model in addition to parental support, parenting style, and personality traits.

In addition, data revealed the majority of participants began private piano lessons between ages 5 through 8. Future research could investigate the correlation of length of study with age at which lessons begin in order to investigate the optimal time of lesson exposure.

The majority of parents of the students surveyed currently plays or has played a music instrument in the past. These results revealed piano students who study more than two years in duration tend to have parents who are personally involved within music education. Further research should explore whether a relationship exists between the instrument parents studied and students' instrument choice and or length of study.

Most participants (92.6%) reported owning a metronome. However, participants were not asked whether they use a metronome during practice sessions. Asking this follow-up question in future research could better describe the student-participants' behaviors.

The decision to enroll in piano lessons was predominantly made by parents or a combination of the student and parent. Students within the current research have studied for as long as 149 months. It would be informative to research parents who did not partake in private music lessons and determine their influence upon student enrollment and length of piano study.

The average number of individuals living in the household was reported to be four. Further study should explore whether the presence of a

sibling is related to length of study. Additional research could examine birth order as it pertains to length of study, as well.

Participants' age is a limitation of the current study as all testing measurements were designed for adolescents, and students as young as 8 years of age participated within the current study. As such, participants' ability to comprehend and accurately answer questions may have been compromised. Future research could investigate students according to a narrow parameter of age, 13 to 15 years of age, in order to determine the effect of age upon length of study. Additionally, comparing piano festival participants to participants from different piano venues, such as piano competitions, could be enlightening. Piano competitions often demand the student to have mastered a higher level of repertoire and artistic level in order to enroll and competitively rank students.

Although adolescents may be more accurate in sensing and perceiving parental behavior (Feldman et al., 1989), an additional limitation of the current study was the sole consideration of students' perceptions of parental behavioral support, parental cognitive support, parental personal support, and parenting style. Surveying parents of piano students could also be a means of comparing students' perceptions to parents' perceptions of parental support and parenting style. Determining whether parent and student perceptions are congruent would be fascinating. Additionally, analyzing parenting style according to the four categories of authoritarian,

authoritative, permissive, and unengaged should be conducted in future research.

According to the results of this study, as students' length of study increases, their need for parental cognitive support decreases while their need for parental behavioral and personal support increases. The need for less parental involvement is congruent with prior research (Howe, Davidson, Moore, & Sloboda, 1995; Sloboda & Howe, 1991; Sloboda, 1996). It is not evident why cognitive support was the only type of support negatively associated with length of piano study. Examining differences between cognitive support versus behavioral and personal support as it influences length of study is recommended. Therefore, improving the measurement accuracy of the *PIPS* would be advantageous for further research.

These findings contribute to the current literature by providing additional awareness of the impact of parental variables and student personality upon students' task involvement. Parental involvement was previously considered as a single dimension (Brand, 1985; Cooper, 1996; Corenblum & Marshall, 1998; Zdzinski, 1996). As noted by the different degrees of correlations, parental involvement should be understood as a complex phenomenon that consists of multiple dimensions and degrees of relationships. Supported by the current research findings, piano teachers can feel confident to share specific strategies with which to empower parents and ultimately enhance music education.

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APPENDIX A

QUESTIONNAIRE FOR STUDENTS:
PARENTAL BEHAVIORAL SUPPORT IN PIANO LESSONS

Parental Behavioral Support in Piano Lessons

1. My parents go to my piano events (like competitions, festivals, recitals).

Always Very Often Often Not Very Often Never

2. My parents come to my piano lessons.

Always Very Often Often Not Very Often Never

3. My parents help me at lessons by taking notes.

Always Very Often Often Not Very Often Never

4. My parents talk to my piano teacher before or after lessons.

Always Very Often Often Not Very Often Never

5. My parents ask me about what I did in piano lessons.

Always Very Often Often Not Very Often Never

6. My parents help me with my practicing.

Always Very Often Often Not Very Often Never

7. My parents help me prepare for recitals, competitions/festivals.

Always Very Often Often Not Very Often Never

8. My parents ask me if I practiced.

Always Very Often Often Not Very Often Never

9. My parents help me plan time for my practicing.

Always Very Often Often Not Very Often Never

10. My parents listen to me practice.

Always Very Often Often Not Very Often Never

11. My parents tell me how important piano lessons are.

Always Very Often Often Not Very Often Never

APPENDIX B

QUESTIONNAIRE FOR STUDENTS:
PARENTAL COGNITIVE SUPPORT IN PIANO LESSONS

Parental Cognitive Support in Piano Lessons

1. My parents listen to music with me on the radio or on CDs.

Always Very Often Often Not Very Often Never

2. My parents talk about musical concerts, artists, or festivals with me.

Always Very Often Often Not Very Often Never

3. My parents buy me piano books or CDs in addition to what I am studying in my piano lessons.

Always Very Often Often Not Very Often Never

4. My parents talk to me about discipline and the importance of practicing.

Always Very Often Often Not Very Often Never

5. My parents take me to concerts or musicals.

Always Very Often Often Not Very Often Never

6. My parents talk to me about establishing goals for piano lessons.

Always Very Often Often Not Very Often Never

APPENDIX C

QUESTIONNAIRE FOR STUDENTS:
PARENTAL PERSONAL SUPPORT IN PIANO LESSONS

Parental Personal Support in Piano Lessons

1. My parents know what I am doing in piano lessons.

Highly Agree	Agree	Neither agree or Disagree	Disagree	Highly Disagree

2. My parents want to know about my piano lessons.

Highly Agree	Agree	Neither agree or Disagree	Disagree	Highly Disagree

3. My parents do a lot to help me do better in my piano lessons.

Highly Agree	Agree	Neither agree or Disagree	Disagree	Highly Disagree

4. My parents know when I have done well or need to work harder for my piano lessons.

Highly Agree	Agree	Neither agree or Disagree	Disagree	Highly Disagree

5. My parents and I sing and/or play music together.

Highly Agree	Agree	Neither agree or Disagree	Disagree	Highly Disagree

6. My parents are interested in my piano lessons.

Highly Agree	Agree	Neither agree or Disagree	Disagree	Highly Disagree

7. My parents enjoy listening to me practice.

Highly Agree	Agree	Neither agree or Disagree	Disagree	Highly Disagree

8. My parents enjoy listening to piano music on the radio or on CDs.

Highly Agree	Agree	Neither agree or Disagree	Disagree	Highly Disagree

9. My parents usually know what pieces I am working on in lessons.

Highly Agree	Agree	Neither agree or Disagree	Disagree	Highly Disagree

APPENDIX D

DEMOGRAPHIC QUESTIONNAIRE FOR PARENTS

DEMOGRAPHIC QUESTIONNAIRE FOR PARENTS

1. Is the person filling out this survey the child's mother or father? (Circle one)

    a. Mother
    b. Father

2. Do you play a music instrument, or have you played an instrument in the past? (Circle one)

    a. Yes
    b. No (skip to question 5)

3. If yes, what instrument/s and for how long? *Please circle the instrument if currently playing*

    a. _____
    b. _____
    c. _____

4. Are you a professional* musician? (Circle one)
    **receive money for playing*

    a. Yes
    b. No

5. For how many *months* has your child taken private piano lessons over their lifetime?

    a. _____

6. At what age did your child begin studying the piano with a private teacher?

   a. _____

7. Whose decision was it for your child to begin piano lessons? (Circle one)

   a. Parent
   b. Child
   c. Other: *please name*
      _____

8. Do you own and play CDs of piano music and/or listen to piano music on the radio? (Circle one)

   a. Yes: daily weekly monthly
   b. No

9. Does your child own a metronome? (Circle one)

   a. Yes
   b. No

10. What is your child's age?

    Age: _____

11. In which grade in school is your child currently enrolled?

    Grade: _____

12. What is your child's gender? (Circle one)

    a. Male
    b. Female

13. Please circle all the people who live in your household, including yourself.

    a. Self
    b. Spouse/Housemate
    c. Son(s) *list ages*_____ _____ _____ _____ _____ _____
    d. Daughter(s) *list ages*_____ _____ _____ _____ _____ _____
    e. Please list other relatives that live in household _____

14. What is your total annual household income? (Circle one)

    a. Less than $25,000
    b. $25,000 to $49,999
    c. $50,000 to $74,999
    d. $75,000 to $99,999
    e. $100,000 to $124,999
    f. $125,000, to $149,999
    g. Greater than $150,000

APPENDIX E

PAULSON'S PARENTING STYLE QUESTIONNAIRE

Demandingness Measure

Using the scale below, indicate the number which best describes your MOTHER from 1 Very Unlike to 5 Very Like for each item.

Very Unlike	More Unlike than Like	Neither Like nor Unlike	More Like than Unlike	Very Like
1	2	3	4	5

_____ 1 My mother has rules for me about watching TV.
_____ 2. I would describe my mother as a strict parent.
_____ 3. It is okay with my mother if I do not follow certain rules.
_____ 4. When I do something that is wrong, my mother usually does not punish me.
_____ 5. I think my mother disciplines me a lot.
_____ 6. My mother usually wants to know where I am going.
_____ 7. My mother gives me a lot of freedom.
_____ 8. My mother makes most of the decisions about what I am allowed to do.
_____ 9. My mother gives me chores to do around the house routinely.
_____10. My mother lets me do pretty much what I want without questioning my decisions.
_____11. My mother rarely gives me orders.
_____12. My mother has few rules for me to follow.
_____13. My mother expects me to be home at a certain time after school or in the evening.
_____14. It does not really matter to my mother whether or not I do assigned chores.
_____15. My mother sometimes tells me that her decisions should not be questioned.

Father scale--change “mother” to “father” and replace pronouns as appropriate

Responsiveness Measure

Using the scale below, indicate the number which best describes your MOTHER from 1 Very Unlike to 5 Very Like for each item.

Very Unlike	More Unlike than Like	Neither Like nor Unlike	More Like than Unlike	Very Like
1	2	3	4	5

_____ 1. My mother sometimes criticizes me for what I do.
_____ 2. My mother expects me to tell her when I think a rule is unfair.
_____ 3. My mother encourages me to look at both sides of an issue.
_____ 4. It is hard for my mother to admit that sometimes I know more than she does.
_____ 5. My mother does not think that I should help with decisions in our family.
_____ 6. My mother encourages me to talk with her about things.
_____ 7. My mother does not believe that she should have her own way all the time anymore than she believes I should have mine.
_____ 8. My mother would rather I not tell her my troubles.
_____ 9. My mother expects me to do what she says without having to tell me why.
_____10. My mother seldom praises me for doing well.
_____11. My mother believes I have a right to my own point of view.
_____12. My mother takes an interest in my activities.
_____13. My mother encourages me to talk to her honestly.
_____14. My mother usually tells me the reasons for rules.
_____15. My mother does not believe I should have a say in making rules.

Father scale--change “mother” to “father” and replace pronouns as appropriate

APPENDIX F

RESOURCE ASSOCIATES'
ADOLESCENT PERSONAL STYLE INVENTORY

PERSONAL STYLE INVENTORY FOR ADOLESCENTS

(Version 2000)

INSTRUCTIONS: As you read each of the following sentences, think about how you act or feel most of the time. Think about whether you agree or disagree with each sentence. Beside each sentence, there are five numbers that measure how much you agree with the sentence. For each sentence, decide which of the 5 numbers best describes how much you agree with the sentence. Circle that number. For example, if you agree with the sentence, you might want to circle the number 4 or 5, depending on whether you agree or strongly agree with the sentence. If you disagree with the sentence, you might want to circle the number 1 or 2, depending on whether you strongly disagree or disagree with the sentence. If you are unsure about whether you agree or disagree, or if you feel in-between about the sentence, you might want to circle the number 3. You can use a pencil or pen to mark your answers. If you change your mind about an answer, make sure you erase your old answer completely. Then mark your new answer clearly.

Here are three examples:

EXAMPLE 1:

I will do anything I can to make sure a school project gets done on time.
1 2 3 4 ⑤

In this example, the person circled number 5. This means that the person strongly agrees with the sentence. The person thinks it is important to turn in work on time.

EXAMPLE 2:

When I am working on a problem, I hate it when a person tries to talk to me.
1 ② 3 4 5

In this example, the person circled number 2. This means that the person disagrees with the sentence. The person does not mind when someone talks to him or her while the person is working.

EXAMPLE 3:

For me to feel good about myself, it is important that I get good grades.
1 2 ③ 4 5

In this example, the person circled number 3. This means that the person is in-between or that they cannot decide on where it is important to get good grades to feel good about himself or herself.

There are no right or wrong answers to the questions. Please answer each of the questions from <u>your</u> point of view. Do not answer the questions like you think your parents or your teacher would expect you to answer. BE HONEST in how you answer the questions. If you do not understand these instructions, ask the person who gave you this form to explain what you don't understand.

PERSONAL STYLE INVENTORY FOR ADOLESCENTS

Directions: Read each sentence. **Circle** the answer that describes you the best. Use the following to help you answer.
1 = **Strongly Disagree** – you strongly disagree with the sentence; it really does not describe you at all.
2 = **Disagree** – you disagree with the sentence; it basically does not describe you.
3 = **In-between** – you are not sure whether you agree or disagree with this sentence; you are undecided.
4 = **Agree** – you agree with this sentence; it basically describes you**.**
5 = **Strongly Agree** - you strongly disagree with the sentence; it describes you all the time.

		Strongly Disagree	Disagree	In-Between	Agree	Strongly Agree
1	I am always very careful when I am doing school work.	1	2	3	4	5
2	My mood goes up and down more than most people.	1	2	3	4	5
3	I spend a lot of time talking to other people.	1	2	3	4	5
4	I like to find out about new things that interest me, even though they are not required for any class.	1	2	3	4	5
5	Most people who know me well would say I am easy to get along with.	1	2	3	4	5
6	I always try to do more than I have to in my classes.	1	2	3	4	5
7	I always finish everything I start.	1	2	3	4	5
8	Sometimes I don't feel like I'm worth much.	1	2	3	4	5
9	It is hard for me to make new friends.	1	2	3	4	5
10	I like to try new ways of doing things.	1	2	3	4	5
11	I sometimes say things just to make other people mad.	1	2	3	4	5
12	I have more energy for schoolwork than most students.	1	2	3	4	5
13	I like to plan things before I do them.	1	2	3	4	5
14	I often feel tense or stressed out.	1	2	3	4	5

15 I am very outgoing and talkative.	1	2	3	4	5
16 I like to learn new games and hobbies.	1	2	3	4	5
17 I am always polite to other people.	1	2	3	4	5
18 Even if I won a million dollars, I would study hard to make good grades in school.	1	2	3	4	5
19 I try to be very neat and organized in my homework and class assignments.	1	2	3	4	5
20 I sometimes feel like everything I do is wrong or turns out bad	1	2	3	4	5
21 I smile a lot when I am around other people.	1	2	3	4	5
22 I like to read books on different subjects.	1	2	3	4	5
23 I try to be nice and polite in every situation.	1	2	3	4	5
24 I like to impress my teachers by doing more than they ask for in class.	1	2	3	4	5
25 My teachers can always count on me to do what they ask me to do in class.	1	2	3	4	5
26 I feel like I can't handle everything that is going on in my life.	1	2	3	4	5
27 I like to go to big parties.	1	2	3	4	5
28 I would like to learn how to read and speak a foreign language.	1	2	3	4	5
29 I sometimes make fun of other kids in school.	1	2	3	4	5
30 I would keep going to school even if I didn't have to.	1	2	3	4	5
31 I try to be very neat and organized in my homework and class assignments.	1	2	3	4	5
32 I sometimes feel like I'm going crazy.	1	2	3	4	5
33 I have a lot of energy when I am around other people.	1	2	3	4	5
34 My friends would say I have a lot of curiosity about things in general.	1	2	3	4	5
35 If anybody says something mean to me, I say something mean right back to them.	1	2	3	4	5
36 I study more than most students in my school.	1	2	3	4	5
37 I like to keep everything I own in its proper place.	1	2	3	4	5

38 It takes a lot to get me worried.	1	2	3	4	5
39 Some people say I talk too much.	1	2	3	4	5
40 I like to hear about ideas that are different from mine.	1	2	3	4	5
41 I hate to argue with other people.	1	2	3	4	5
42 Doing well in school is the most important thing in my life.	1	2	3	4	5
43 It is hard for me to keep my bedroom neat and clean.	1	2	3	4	5
44 I sometimes feel sad or blue.	1	2	3	4	5
45 I talk on the phone a lot.	1	2	3	4	5
46 I like to find out how people live in other places in the world.	1	2	3	4	5
47 I sometimes trick other people into doing what I want them to do.	1	2	3	4	5
48 My friends say I study too much.	1	2	3	4	5
49 I always clean up after I have made a mess.	1	2	3	4	5
50 I feel good about myself most of the time.	1	2	3	4	5
51 If I am in a group and no one says anything, I will say something first.	1	2	3	4	5
52 I would like to travel to other countries.	1	2	3	4	5
53 Sometimes I say things on purpose to hurt other people's feelings.	1	2	3	4	5
54 Being a good student means a lot to me.	1	2	3	4	5

APPENDIX G

LETTER REQUESTING TO COLLECT DATA

LETTER REQUESTING TO COLLECT DATA

Dear [Insert the city-affiliated Music Teachers National Association chapter President's name here],

I am a PhD candidate in music education, emphasis in piano pedagogy, at the University of Oklahoma. For my dissertation, I am investigating the parental and personality factors that predict length of piano study. I am specifically looking at parental support, parenting style, and students' personality traits in relationship to students' length of piano study. I am collecting data from students who have studied piano for at least two years in duration. I am interested in attending [insert name of city-affiliated Music Teachers National Association here] this fall. I would also like to discuss the possibility of having space, a separate room, within the facility in order to be able to administer and collect the questionnaires. If possible, I would like to place a sign on the front door of the facility stating, "This site has been selected for research concerning piano students." The individuals at the sign-in desk will give volunteering students and parents researcher-provided slips of paper. These slips of papers state the data collection room number. Students and parents will report to the data collection room following the student's performance. Parents will be asked to sit outside the data collection room in order to sign the parental consent form and complete the 14-item Demographic Questionnaire. The students will be asked to sign an assent form and then to complete a Questionnaire Packet that will take approximately 20-30 minutes. All participating students, regardless if they complete the entire Questionnaire Packet, will have the option to participate in a raffle. Two items will be raffled as prizes: a mini-iPod and a month of free piano lessons with their regular piano teacher, paid by the researcher.

I am asking if your Executive Board would provide approval to conduct this important research. On the day of the piano event, I will attend the event and collect surveys from willing students and parents. The findings will provide valuable information that will enhance our objectives in providing extended and quality piano instruction to our students, hopefully extending throughout a lifetime. I am asking far in advance to promote participation, circumvent any problems, expedite planning, and answer any questions. Thank you for your assistance!

Theresa Camilli
theresa.c.camilli-1@ou.edu

APPENDIX H

INSTITUTIONAL REVIEW BOARD APPROVAL

The University of Oklahoma

OFFICE FOR HUMAN RESEARCH PARTICIPANT PROTECTION

IRB Number: 12679
Approval Date: September 14, 2009

September 16, 2009

Theresa Camilli
Music
500 W. Boyd Street, CMC 138
Norman, OK 73019

RE: Parental and Personality Factors that Predict Students' Length of Piano Study.

Dear Ms. Camilli:

On behalf of the Institutional Review Board (IRB), I have reviewed and granted expedited approval of the above-referenced research study. This study meets the criteria for expedited approval category 7. It is my judgment as Chairperson of the IRB that the rights and welfare of individuals who may be asked to participate in this study will be respected; that the proposed research, including the process of obtaining informed consent, will be conducted in a manner consistent with the requirements of 45 CFR 46 as amended; and that the research involves no more than minimal risk to participants.

This letter documents approval to conduct the research as described:

Consent form - Subject Dated: September 14, 2009 18 & Older
IRB Application Dated: September 14, 2009 Revised
Protocol Dated: September 14, 2009 Revised
Assent Form Dated: September 14, 2009 Ages 13-17
Survey Instrument Dated: September 14, 2009 Instructions administering asmnt pckt - Revised
Consent form - Subject Dated: September 14, 2009 Parent as Participant
Consent form - Parental Dated: September 14, 2009 Revised
Other Dated: September 14, 2009 Recruitment Ltr to Music Teachers - Revised
Other Dated: September 14, 2009 Recruitment email/letter to piano teachers - Rev
Other Dated: September 14, 2009 Instructions for registering students - Revised
Assent Form Dated: September 14, 2009 Ages 7-12
Other Dated: August 24, 2009 Sprt Ltr - Mid-Missouri Area Music Teacher Assoc
Other Dated: July 25, 2009 Key Study Personnel Procedures
Survey Instrument Dated: July 25, 2009 Assessment Packet
Survey Instrument Dated: July 25, 2009 Personal Style Inventory for Adolescents
Survey Instrument Dated: July 25, 2009 Demographic Survey for Parents
Other Dated: July 23, 2009 Support Letter - Norman Area Music Teachers Assoc.

As principal investigator of this protocol, it is your responsibility to make sure that this study is conducted as approved. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request by completing a protocol modification form. All study records, including copies of signed consent forms, must be retained for three (3) years after termination of the study.

The approval granted expires on September 13, 2010. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide the IRB with an IRB Application for Continuing Review (Progress Report) summarizing study results to date. The IRB will request an IRB Application for Continuing Review from you approximately two months before the anniversary date of your current approval.

If you have questions about these procedures, or need any additional assistance from the IRB, please call the IRB office at (405) 325-8110 or send an email to irb@ou.edu.

Cordially,

1000 Asp Avenue, Suite 316, Norman, Oklahoma 73019-3085 PHONE: (405) 325-8110 FAX:(405) 325-2373

Lynn Davenport, Ph.D.
Chair, Institutional Review Board

APPENDIX I

PROCEDURES FOR DATA COLLECTION

PROCEDURES FOR DATA COLLECTION

Lead Researcher (will be working with Assistant #2)
Responsibilities: confirm ability to conduct research at piano event; send email to teachers who have students participating in piano event; attend piano event; place sign on front door of facility; provide instructions to individuals registering students during piano event and slips of prepared paper with data collection room/map; administer and collect parental consent and student assent forms (staple these forms together); administer raffle tickets to students; place the appropriate number on parental Demographic Questionnaire (tell Assistance #2 which number to place on the child's Questionnaire Packet); administer and collect pencils and parental Demographic Questionnaires; ask parents to wait for child; take sign down from building at the end of the event

Assistant #1 (in place of Lead Researcher when Lead Researcher is unable to attend piano event; will be working with Assistant #2)
Responsibilities: attend piano event; place sign on front door of facility; provide instructions to individuals registering students during piano event and slips of prepared paper with data collection room/map; administer and collect parental consent and student assent forms (staple these forms together); administer raffle tickets to students; place the appropriate number on parental Demographic Questionnaire (tell Assistance #2 which number to place on the child's Questionnaire Packet); administer and collect pencils and parental Demographic Questionnaires; ask parents to wait for child; mail raffle tickets, completed consent/assent forms, parental Demographic Forms, and student Assessment Packets to Lead Researcher; take sign down from building at the end of the event

Assistant #2 (working inside the data collection room; will be working with either the Lead Researcher or Assistant #1)
Responsibilities: attend piano event; collect raffle tickets from students (place in metal, locked-box); confirm that student has signed assent form; place appropriate number on Questionnaire Packet (Lead Researcher/ Assistant #1 will tell you correct number); distribute pencils and Questionnaire Packets; read Script for Administering the Questionnaire Packets; answer any questions; collect Questionnaire Packets (place in secure, locked file box)

1. Provide contact information of the city-affiliated Music Teachers National Association Executive Board President to the lead researcher.

2. Tell the lead researcher which city-affiliated piano event you would be able to attend.

3. The lead researcher will contact Executive Board President and seek approval to collect data at the preferred piano event; lead researcher will ask for email addresses of participating teachers for future email communication.

4. The lead researcher will send email to teachers of participating students asking them to announce that research will be conducted at the piano event; We will sign your name in addition to the lead researcher's name at the bottom of the letter since you are a member of the chapter.

5. Attend piano event:

- Bring Questionnaire Packets, sign for front door, Instructions for Individuals Registering Students During the Piano Event, slips of paper with data collection room number/map, parental Demographic Questionnaires, Parental Informed Consent Forms, secure file box for data, Student Assent Forms, Script for Administering the Questionnaire Packets, raffle tickets, metal, locked box, and pencils.
- Tape Sign to front door of facility that states, "This site has been selected for research concerning piano students."
- Remind individuals at the sign-in desk to distribute slips of paper with data collection room number; provide these individuals the Instructions for Registering Students During the Piano Event
- Following the student's performance, ask one parent to sign Informed Consent Form and complete Demographic Questionnaire while seated at provided table outside the data collection room.
- Ask student to complete the Student Assent Form. Staple this form to the completed Parental Consent Form.
- Ask student to write name and telephone number on raffle ticket.
- Number the parent's Demographic Questionnaire. Place this same number on the student's Questionnaire Packet.
- Student will enter data collection room. Place the raffle ticket in the metal locked-box. Parents must wait outside.
- Student will be given a pencil and a Questionnaire Packet to complete. Read Script for Administering the Questionnaire Packets to student. Student can ask questions at any point. Students do not need to complete entire Assessment Packet.
- Upon completion of the Questionnaire Packet, students will exit the data collection room and join parents.

6. Return Questionnaire Packets, parental Demographic Questionnaires, Parental Informed Consent Forms, Student Assent Forms, and completed raffle tickets to the lead researcher via the United States Postal Service, certified mail.

APPENDIX J

EMAIL LETTER TO PIANO TEACHERS

EMAIL LETTER TO PIANO TEACHERS

Dear [Insert city-affiliated Music Teachers National Association piano teacher's name],

I am a PhD candidate in music education, emphasis in piano pedagogy, at the University of Oklahoma. For my dissertation, I am investigating the parental factors and personality traits that predict length of piano study. I am specifically looking at parental support, parenting style, and students' personality traits in relationship to students' length of piano study. I am collecting data from students who have studied piano at least two years in duration and who are participating in [insert name of city-affiliated Music Teachers National Association piano event] this fall. [If lead researcher will not be present to collect data, insert sentence with the data collector's name]

I am asking for your help in soliciting student participation for this important research. If your piano students fulfill the stated requirements-*studying piano for at least two years*-please inform them their participation will be requested when they attend the piano event. Students will also have the option to be entered into a raffle for one of two prizes: mini-iPod or a month of free lessons with their regular teacher, paid by the lead researcher. The individuals signing-in participants at the piano event's registration desk will ask students and parents if they would like to participate. Providing students and parents this advance notice and your support will hopefully increase overall participation and allow more surveys to be collected. Parents must be present as parental Informed Consent Forms must be signed. The students and parents are asked to report to the data collection room after performing. Parents will also be asked to complete a 14-item Demographic Questionnaire while waiting for their students to complete their surveys. The confidential student surveys will take approximately 20-30 minutes to complete.

If I can answer any questions, please feel free to email me.

Thank you for your assistance in this research,

Theresa Camilli
theresa.c.camilli-1@ou.edu

APPENDIX K

INSTRUCTIONS FOR INDIVIDUALS REGISTERING
STUDENTS DURING THE PIANO EVENT

INSTRUCTIONS FOR INDIVIDUALS REGISTERING
STUDENTS DURING THE PIANO EVENT

1. Thank you for your assistance!

2. Please ask students how long they have studied piano when they sign-in for the [insert name of city-affiliated Music Teachers National Association piano event].

3. Students must have been studying piano for **two or more years** to participate. If students studied for less than two years, you do not need to proceed with further questions.

4. If students have been studying piano for **two or more years**, please state the following:

   "Your participation is needed for important research concerning piano study. Piano students opinions are being investigated in the Midwestern Region of the United States. After you perform, you have the option of completing a Questionnaire Packet? The Questionnaire Packet will take between 20-30 minutes to complete. You will also be eligible to participate in a raffle for a mini-iPod or a month of free piano lessons by your teacher. After you perform, would be willing to complete this Questionnaire Packet?"

5. If students say, "Yes," ask their parent the following:

   "If you approve of your child participating in this research study, you and your child should go to room [insert data collection room number here]. You will be asked to sign a Parental Consent Form and a basic Demographic Form outside the data collection room. Your child will be asked to sign an assent form and will then be allowed to complete the Questionnaire Packet in the data collection room. The Demographic Form should take approximately 5 minutes for you to complete. Would you like to participate?"

   If two parents are present, only one parent can participate.

6. If the parent approves of their child participating, please give the provided slip of paper with the room number and map to the parent.

7. If the child or parent does not wish to participate, no further questions need to be asked.

APPENDIX L

INFORMED PARENTAL CONSENT FORM

University of Oklahoma
Institutional Review Board
Parental Consent to Participate in a Research Study

Project Title:	Parental and Personality Factors that Predict Students' Length of Piano Study
Principal Investigator:	Theresa Camilli
Department:	School of Music, University of Oklahoma

I am surveying piano students in order to receive feedback on key factors that may influence length of piano study. Approximately 700 piano students from the Midwestern Region of the United States will participate in this study. Please read this form and ask any questions that you may have before granting permission for your child to participate in this study.

The students' participation in the data collection process will take approximately 20-30 minutes to complete. During this time, you will be asked to wait outside of the data collection room. You also will have the choice to complete a brief, 14-item demographic questionnaire approximately five minutes in length. You do not have to fill out the demographic questionnaire and may leave any questions unanswered.

There are no foreseeable risks to you or your child from participating in this study. The questionnaires will be kept confidential in a secured, locked filing cabinet. There is no name on your child's questionnaire or your demographic questionnaire. The use of an ID number will protect your child's questionnaire and your demographic questionnaire from being linked to any individuals. All materials presented will be in group form. Findings from this formal research could contribute to the development of instructional strategies of private piano studios.

Your child will have the option of participating in a raffle. If they chose to participate, they will be asked to write their name and phone number on the reverse side, and submit it to the researcher in charge. If your child chooses to do this, he/she will be entered into a raffle for a mini-iPod or a month of free piano lessons from his or her regular piano teacher. The raffle will be conducted when the data collection process is completed. Two winning tickets will be drawn and these students will be contacted via the telephone number they have written on the raffle ticket. Your child still will be eligible for the raffle if you or your child decide to withdrawal from the research early, if

the child's name and phone number are written on the ticket and properly submitted.

Participation is voluntary. Refusal to participate will involve no penalty. You or your child may discontinue participation at any time without penalty. You will be given a copy of this form to keep.

By signing this form, you are giving consent for your child to participate in this study.

Name (Please print)

Signature **Date**

APPENDIX M

STUDENT ASSENT FORM

University of Oklahoma
Institutional Review Board
Assent to Participate in a Research Study

Project Title: Parental and Personality Factors that Predict Students' Length of Piano Study
Principal Investigator: Theresa Camilli
Department: School of Music, University of Oklahoma

For children under the age of 18 years old

A research study is when researchers collect information to learn about something. This important research study is being done in order to determine why students decide to continue taking piano lessons. We are going to ask you a lot of questions. There will be about 700 students completing this questionnaire throughout the Midwestern Region of the United States. We care about your answers!

If you participate in this study, you will be asked to answer questions as truthfully as possible. The questionnaires will take approximately 20 to 30 minutes to complete. No bad things will happen to you if you are in this study. No one will know what you answered because we do not want you to place your name on the questionnaire. All of your answers will be kept secret.

You can ask questions at any point during the study. You can choose not to answer questions. You can choose to stop completing the questionnaire at any point during the study.

If you chose not to be in the study, please let us know.

If you chose to be in the study, please let us know.
You will be given a copy of this form to keep.

Name (Please print)

Signature **Date**

APPENDIX N

SCRIPT FOR ADMINISTERING THE
QUESTIONNAIRE PACKET

SCRIPT FOR ADMINISTERING THE
QUESTIONNAIRE PACKET

Script to be read by individual collecting data during the piano event

Parents should be seated at table outside data collection room completing the Demographic Questionnaire.

Please read to student:

“Thank you for taking time to participate in this important research study concerning piano student’s opinions. You will be given a packet to complete. Please take your time answering all the questions. When you are answering the first three questions that ask about your parents [show the student the first three questionnaires in the packet], answer the question according to your current and past years studying piano.

For example, the first question says, *‘My parents go to my piano events (like competitions, festivals, recitals).’* Chose your answer, “Always,” “Very Often” “Often,” “Not Very Often,” or “Never” according to the entire time you have been in piano lessons. Answer the questions according to whichever parent participates the most. For example, if your mother *always* goes to your piano events, but your dad does not often attend, you would answer according to your mom’s participation and circle, “Always.”

If you do not understand any of the questions please ask. There are no right or wrong answers. Do you have any questions? Please begin.”