

Predictors of Musical Performance: Personality, Performance Anxiety, and Flow

A Dissertation Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Whitney Jean Statham

August 2016

Copyright © 2016 by Whitney Statham
All rights reserved.

Abstract

There is evidence to suggest that many university schools of music struggle with student retention. In many music programs, a significant factor in students being able to matriculate in their area of study is based on quality of performance in high-pressure settings in the form of jury performances. The importance placed on these jury performances makes the ability to predict a student's success in this area highly valuable to students and music educators. Using the Big Five Model of personality and a measure of narrow personality traits, this study used a stepwise multiple regression analysis to examine the relationship between performance outcomes (jury scores), personality, musical performance anxiety, and dispositional flow in a sample of students enrolled in an applied college music program ($N= 109$). The overall prediction model was not found to be significant. The narrow personality trait of Work Drive ($\beta = .27$), and performance anxiety in a solo context ($\beta = -.31$) were shown to be significant and unique predictors of jury scores. Results also revealed multiple significant inter-correlations among variables, finding significant correlations between flow and jury scores, solo specific performance anxiety and flow, neuroticism and performance anxiety, neuroticism and flow, and performance anxiety, in ensemble and practice settings. Compared to general performance anxiety results of this study lend support to a model of context specific musical performance anxiety where participants rated anxiety to be higher during solo performances compared to group or practice performances. The findings of this study serve to lay a foundation for possible future paths of research by narrowing the scope of possible predictors of musical performance for further investigation.

Table of Contents

Chapter 1 Introduction	1
Chapter 2 Literature Review	3
Persistence in Higher Education Music Programs.....	3
Personality	7
Performance Anxiety	9
Flow	11
Present Study	12
Chapter 3 Methods.....	13
Participants	13
School of Music Program	14
Measures	14
Procedure	18
Chapter 4 Results	20
Hypothesis 1.....	20
Hypothesis 2.....	21
Hypothesis 3.....	21
Chapter 5 Discussion	23
Limitations	29
Future Directions	30
Conclusion	31
List of References	32
Appendix	41
Appendix A	45
Appendix B	47
Appendix C	48
Vita	49

List of Tables

Table 1 Descriptives and Correlations among all Study Variables	38
Table 2 Results of the Stepwise Multiple Regression Analyses by Jury Score.....	39
Table 3 Reduced Variables Multiple Regression Analyses by Jury Score for Future Study	44

Chapter 1

Introduction

For many university schools of music, a considerable number of college music majors will matriculate, but never earn a degree. Low graduation rates raise potential concerns for many music educators (Bergee, 1992) and serve as a potential threat to the future of music professions such as music education. Additionally, high attrition rates within a school of music raise financial concerns as well as endangering the program's ability to achieve its own educational objectives and meet accreditation requirements.

In order to continue in applied music programs, it is required that students successfully complete a final performance each semester for a panel of jurors (comprised of music faculty) to demonstrate progress in their program. These performances, often referred to as "juries," are an exercise in high stakes performance testing and are often influenced by factors outside of musical ability. Past studies on music student attrition have suggested the jury grade had a stronger predictive relationship to music program retention than enrollment status, high school GPA, scores on a music achievement test, motivation and commitment, participation in music organizations, and videotaped teaching competencies for music education majors, (Brown & Alley, 1983). The current study seeks to investigate the relationship between multiple factors influencing performance under high stress conditions in the form of juries. Specifically, this study investigated the relationship between jury ratings and students' personality (as operationalized by the Five Factor Model of Personality), magnitude of performance anxiety characteristics and symptoms, and dispositional flow. By identifying factors influencing musical performance, this study further aims to illuminate characteristics that may serve to put an

individual at higher risk for not continuing in their music programs, with the hopes of forming an empirical basis for possible future interventions.

Chapter 2

Literature Review

Persistence in Higher Education Music Programs

College student retention has been one of the most extensively studied areas in higher education for the last half century producing a multitude of works dedicated to exploring student persistence (Tinto, 2006). Historically, the study of student persistence began broad, focusing on the overall student body population and taking a student-focused approach. In these early examinations, individual attributes like background, socioeconomic status, gender, and motivation of students who do not persist in higher education were the focuses (Tinto, 2006). From these early investigations, the area of study shifted towards investigating environmental factors and the level of fit between the student and the institution in predicting college retention (Spady, 1970, 1971; Tinto, 1975). In addition to some individual factors, Tinto (1975, 1987) proposed a theoretical model focused on the importance of integration into academic and social systems at an institution as a factor for persisting in higher education. This model sparked a number of later studies, examining social and academic integration (Corley, 2003; Gerdes, & Mallinckrodt, 1994).

The next evolution in college retention research focused on attrition of first year college students, as attrition rates of students from the freshman to sophomore year are typically higher than any other academic year with estimates between 20-30% (Kena, Aud, Johnson, Wang, Zhang, et al., 2014). By gathering data and observations from the American College Testing Program, Levitz, Noel, and Richter (1999), reported that attrition rates after the first year of college are halved for each subsequent year of school attendance. A study by Levitz, Noel, and

Richter (1999) also solidified the body of research targeting first and second year college students as the optimal academic years for potential intervention for improving retention rates.

High attrition rates during the first year of college are consistent with Tinto's (1975, 1987) theory that early stage separation from existing social systems, as freshman leave to attend college, is the biggest barrier in students integrating into a higher education institution. However, Tinto's theory has failed to fully account for the more complex picture of factors impacting student attrition. For example, more recent research has moved towards narrowing the focus from the overall student body to an examination of subgroups among the student population that took into account race, ethnicity, culture, religion, as well as specific area of study and major of students (Kroc, Howard, Hull, & Woodard, 1997; Tinto, 2006; Vignoles & Powdthavee, 2009). Similarly, researchers have also begun to look at retention in different institutional environments such as public universities, private universities, residential and non-residential institutions, and community colleges (Grimes & Antworth, 1996; Tinto, 2006).

One such specific area of study is within university schools of music, where there has been only a small number of empirical studies examining retention in music students. The most robust of these studies was conducted by Brown and Alley (1983), who investigated factors predicting attrition and persistence in a population of 201 first year undergraduate students majoring in music education at a large Southeastern university. For this longitudinal study, they measured retention rates of two incoming classes (1978, 1979) over a four-year period. They found the attrition rate was 62% for the 1978 class, with 32% of students persisting in their program after four years; and the attrition rate was 39% for the 1979 class, with 58% persisting after three years.

In addition to retention rates, Brown and Alley (1983) also examined possible predictor variables of attrition and persistence including enrollment status, college GPA, high school GPA, score on the Aliferis-Stecklein music achievement test--an essay written describing reasons for becoming a music educator, participation in music organizations, videotaped teaching competencies, and jury grade. Consistent with previous research, they found overall college GPA was the most powerful predictor of student persistence accounting for 42% of the variance between groups. Contrary to previous findings, Brown and Alley (1983) did not find a significant relationship between continuation and motivation or goal commitment as measured by the written essay as to why students wanted to become a music educator. However, they did find jury examination grades explained 32% of the variance in attrition. As suggested by Corley (2003), this finding serves to potentially distinguish applied music students as a distinct population and is an area suggested for future study.

Another important study in retention research specific to music students was conducted by Corley (2003), who focused on academic variables related to attrition using a sample of 95 freshman and sophomore music education majors. Based on the work of Tinto (1975) and Brown and Alley (1983), Corley (2003) categorized the music education major environment into three distinct areas: applied lessons, ensembles, and non-performance courses. Within these environments, Corley (2003), created a questionnaire aimed at investigating the influence of factors of ensemble experiences, applied lesson experiences, non-performance music course experiences, course requirements, performance growth, ensemble placement, music theory course grades, applied lessons, aural skills, and cumulative grade point averages on intent to leave the music education degree program. Corley (2003) also investigated gender interactions for these environments. Results of this study indicate none of these variables (including gender)

were significant predictors of intention to withdraw from the music education program, signifying that there were additional variables, other than academic components, that better predict attrition.

Recent research has focused on filling the need for more descriptive data involving retention of music education majors, with studies focusing on investigating the individual experience of music education students (Conway, Eros, Pellegrino & Chad, 2010; Gavin, 2012) using qualitative methods. The most salient of these studies is Gavin (2012) who investigated the individual experience of students who withdrew from a music education program. Using a sample of 14 students who had been admitted as first year students from the years of 2006-2009 and recently withdrawn from the music education major, Gavin (2012) used semi-structured interviews, questionnaires, research journals, and meetings with researchers to uncover themes and reasons for leaving the music education program. Participants in the study reported a variety of reasons for leaving their program including dismissal from the applied music studio, erosion of personal confidence as a musician, personal life issues, and reassessment of their personal career goals. One of the most prominent themes among participants was related to concerns surrounding the applied or performance component of the music program, including students who reported intense incapacitating performance anxiety and decreased self-confidence in connection to negative experiences during private lessons. Another point of interest from this study was that many of the participants reported a positive and easy experience in transitioning into college. This last finding contradicts the most prominent model in retention research proposed by Tinto (1975), who suggested that lack of integration into a college environment was a primary factor in explaining attrition. While the theoretical models and past studies proposed in the literature offer a foundation for future research they are yet to fully explain the complex

concept of student attrition across a wide range of institutional environments including specific areas of study.

Personality

As jury performance scores have been found to be a strong predictor of attrition (Brown & Alley, 1983 & Tinto, 1975), it follows that the ability to predict factors influencing jury performance outcomes would have utility in predicting the success of students in a music program. One such proposed predictive factor of jury performance is personality. Personality refers to a pattern of relatively permanent traits, dispositions, or propensities that lend consistency to a person's behavior and ways of thinking (Monte, & Sollod, 2003). One of the most widely researched and accepted models of personality is the Five Factor Model, which categorizes personality into five broad traits (extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) commonly referred to as "the Big Five" (De Raad, 2000; McCrae & Costa, 1997). Outside of the Big Five traits, there has been evidence to show that the narrow traits of self-directed learning, optimism, work drive, and sense of identity (Ashton, 1998; Lounsbury, Sundstrom, Loveland & Gisbon 2003; O'Connor & Paunonen, 2007) also have high predictive utility across diverse settings.

Personality research has a long history of predicting performance in organizational and institutional settings. Historically, the bulk of studies take place in industrial organizational research and investigate job performance and job satisfaction (Barrick, & Mount, 1991; Judge, Heller, & Mount, 2002). Many of the findings in personality and job performance research using the Big Five model are best summarized by a meta-analysis study by Barrick and Mount (1991) who categorized job performance into three criteria--job proficiency, training proficiency, and personnel data--for several different types of occupational groups. In this study, they found

conscientiousness had a reliable predictive relationship with job performance across many different occupations. Other personality traits were found to have a reliable predictive relationship depending on type of occupation. For example, extraversion was found to be a valid predictor for occupations involving social interactions, managerial positions, and sales positions. Additionally, they found that openness to experience and extraversion were predictors of training proficiency (Barrick & Mound, 1991).

Applying this past research, personality and performance studies have specialized to many different areas including predicting academic performance. One such study by Lounsbury, Sundstrom, Loveland, and Gisbon (2003) drew on a sample of 175 undergraduate college students. Using a hierarchical multiple regression analysis, they found conscientiousness, openness, and agreeableness were positively related to academic performance. They also found that work drive, a narrow traits of personality, explained a significant amount of the variance in GPA beyond that of individual intelligence. In a similar study, Komarraju, Karau, and Schmeck (2009) found conscientiousness had a strong relationship with motivation; and conscientiousness, openness, neuroticism, and agreeableness explained 14% of the variance in academic performance as measured by GPA.

When applied to the area of music, the majority of personality research has been mainly descriptive, working to categorize the traits of the musician in order to make within group comparisons, and contrast musicians' personalities to non-musicians. One study aimed at as making comparisons to specific personality characteristics for different instrumentalists, and showed that trumpet players were the most extraverted of instrumentalists, while string players tend to be the most introverted (Kemp,1996). Wubbenhorst (1994) sought to examine defining personality characteristics between music education majors, as compared to music performance

majors. No significant differences were found between these two groups; and several shared traits (i.e., extroversion, intuitive, feeling) were found to make up a musician's personality profile.

As shown, the literature on personality when applied to music settings has been mainly descriptive in nature as a way to categorize individual traits for comparison. Despite the demonstrated predictive value of personality and its wide spread use in business and industry, there have been few studies to date that attempted to apply the body of literature from vocational and organizational settings into predicting musical performance from personality constructs. To that end, this study seeks to answer the question: Are there relationships between/among personality traits and musical performance?

Performance Anxiety

As suggested by previous research, performance anxiety and negative self-evaluation of performance may impact an individual's persistence in a college music program (Gavin, 2012). Additionally, performance on jury examinations has been found to be a significant predictor in explaining music program attrition (Brown & Alley, 1983). Performance anxiety has been shown to relate to poorer musical performance (Osborne & Kenny, 2005), thus proving itself a possible threat to the quality of jury performances for individuals who experience musical performance anxiety (MPA).

Performance anxiety or "stage fright" is a common and often debilitating phenomena for many performing artists that can be defined as "the experience of persisting, distressful apprehension about and/or actual impairment of performance skills in a public context to a degree unwarranted given the individual's aptitude, training, and level of preparation" (Salmon, 1990). Performers who experience performance anxiety experience both psychological

(excessive worry) and physiological symptoms (sweating, rapid heart rate) (Levy, Castille, Farley, 2011).

According to a study by Wesner, Noyes & Davis (1990), an estimated 21.4% of musicians surveyed experienced frequent performance anxiety, 16.5% reported that they experience performance anxiety to the point that their performance was dramatically hindered, and 16.1% stated that performance anxiety had a negative effect on their careers. From this study, it is evident that performance anxiety negatively affects the performances and careers of many musicians. In a similar study conducted using a sample of professional orchestral musicians, van Kemenade, van Son, & van Heesch (1995) found that 58.7% of the musicians surveyed experience performance anxiety and, of these 58.7%, a little of half reported performance anxiety had affected them throughout the course of their careers. They also showed that years of experience had no relationship to performance anxiety, showing the persistent nature of performance anxiety. Additionally, 36% of respondents reported that they experienced considerable anticipation anxiety days before a performance. There has also been research to suggest that performance anxiety begins early in the careers of many musicians; and MPA experiences of young musicians are qualitatively similar to MPA experiences of adults (Kenny & Osborne, 2006).

Past literature on performance anxiety has shown that specific personality traits can increase the likelihood for one to experience performance anxiety. General performance anxiety studies, like that of Chamorro-Premuzic and Furnham (2003) found that Neuroticism and Extraversion were positively related to performance anxiety during test taking, while Conscientiousness was negatively related to performance anxiety in a group of college students. As applied to musical performance anxiety, there have been similar findings that show a strong

correlation between performance anxiety and personality factors of Neuroticism and Extraversion (Steptoe, 1989; Steptoe & Fidler, 1987). There has also been past research examining the context and nature of the performance as having an influence on the level of anxiety experienced by a performer, where solo performances tend to lead to higher levels of performance anxiety than group performances or practice (Cox & Kenardy, 1993). In an investigation by Kenny (2011), it was posited that an audition was among the most anxiety provoking performance settings. Additionally, there is also research to support that there are differences in the strength of correlations with performance anxiety and personality traits of Neuroticism and Extraversion based on performance setting between rehearsals and performances (Langendörfer, Hodapp, Kreutz, & Bongard, 2006).

Flow

Flow has been shown to negatively correlate with performance anxiety and may potentially serve as a protective factor for those who experience anxiety (Kirchner, Bloom, & Skutnick-Henley, 2008). Flow is a state of focused absorption in an activity where the individual is participating in an appropriately challenging task and experiences feelings of satisfaction, loss of awareness of time, and loss of feelings of self-consciousness (Csikszentmihalyi, 1990). One characteristic of flow that is likely tied to the negative correlation with performance anxiety is the ability to lose feelings of self-consciousness during a state of flow. Flow has also been shown to be connected to peak performance (Kirchner, Bloom, & Skutnick-Henley, 2008; Privette, 1983) and is a potential general factor that is connected to quality musical performance. Dispositional flow refers to a trait (versus state) approach to examining flow, as dispositional flow investigates the frequency with which people experience flow during a consistent identified activity (Jackson, Martin, & Eklund, 2008).

The Present Study

Based on the lack of knowledge and the dearth of literature related to the relationship among predictors of musical performance, the present study seeks to identify factors that help predict musical performance in college aged musicians. The author hypothesized that personality characteristics, performance anxiety, and dispositional flow were predictors of quality of musical performance as measured by a School of Music's proficiency exams ("juries"). Specifically, it was posited that higher levels of extraversion and lower levels of neuroticism (higher levels of emotional stability) would be related to higher scores on jury performances in college-aged musicians. It was additionally hypothesized that there would be an inverse relationship between jury scores and performance anxiety specific to a solo performance setting. Finally, it was posited that higher levels of dispositional flow would be related to higher scores on jury performance, and that there would be a potential inverse relationship with dispositional flow and performance anxiety.

Chapter 3

Methods

Participants

The data for the present study was collected at a mid-sized Southeastern university School of Music. A total of 109 applied music students 18 years old or older currently enrolled in the School of Music and who were required by their curriculum to participate in jury exams were initially recruited for participation in this study. Participants completed a self-report paper-and-pencil assessment battery.

Of the 109 participants, 36 participants were eliminated from the dataset for leaving at least one measure blank or failing to partake in jury exams, leaving a sample of 73 participants. Of the 73 participants included in the study, random missing data was replaced using the mean score. Participants in this study ranged in age from 18 to 28 with a mean age of 19.76 years ($SD = 2.42$), with 53% identifying as male, 46% identifying as female, and 1% identifying as transgender. With regard to ethnic identification, the sample consisted of 80% White, 12% African American, 4% Hispanic/Latino, 3% Asian American, 1% Biracial/Multiracial individuals. Of all music students in the sample, 56% were freshman, 27% were sophomores, 4% were juniors, 1% were seniors, and 11% held graduate students standing at the university, making up 78% who were working towards their Bachelor of Music degree, 14% working towards their Bachelor of Arts degree, and 8% who were working towards their Master of Music degree. The three largest areas of degree concentrations that participants held (including undergraduate and graduate status) were music education (39% of participants), music performance (30% of participants), and studio music/jazz music (11% of participants). The four

most heavily endorsed primary instruments were voice (16%), flute (12%), saxophone (11%), and clarinet (10%) and the mean reported length of time participants had been studying their primary instrument was 9 years ($SD= 3.86$). Of the participants included in this study 32% reported they intended to pursue music as a future career, 22% reported that they did not intend to pursue music as a future career, and 35% reported that they had not yet decided on a future career in music.

School of Music Program

The sample institution was a mid-sized public four-year institution located in the southeastern United States. The School of Music was fully accredited by the National Association of Schools of Music (NASM), the accrediting agency for music units at institutions of higher education in the United States. The School of Music program consisted of 368 total music majors offering bachelor and master's music degrees, and consisting of a variety of program areas (e.g., Performance, Music Education, Musicology, Jazz, Composition/Theory). Housed in one main building, there were 284 undergraduate students enrolled with 266 seeking a bachelor's of music degree and 18 seeking a Bachelor of Arts degree. There were 84 students enrolled seeking their Master of Music degree at the time of this study. The most populous degree program within the music department was the undergraduate music education degree.

Measures

Personal Style Inventory for College Students. The Personality Style Inventory (PSI; Lounsbury & Gibson, 2010) is a 55-item questionnaire used to measure the Big Five Traits and also includes a measure of the distinct narrow personality traits. Respondents are asked to rate how strongly they identify with the stated behaviors and values on a 5-point scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). The PSI has been proven to have considerable validity

among several college student populations (Lounsbury, Smith, Levy, Leong, & Gibson, 2009; Lounsbury, Tatum, Gibson, Park, Sundstrom, Hamrick, et al., 2003; Neydenova, Lounsbury, Levy, & Kim, 2012), as well as among college age musicians and performing artists (Levy & Lounsbury, 2011).

The Big Five Traits consist of Agreeableness, Conscientiousness, Neuroticism, Extraversion, and Openness. Agreeableness is defined as being cooperative, pleasant, participative, and inclined to interact with others harmoniously (Lounsbury, Smith, Levy, Leong, & Gibson, 2009; Lounsbury & Gibson, 2010)--current sample Cronbach's $\alpha = .74$. A sample item measuring Agreeableness includes, "I try to be nice and polite in every situation." Conscientiousness is operationalized as being reliable, trustworthy, orderly, dependable, organized, and rule-following, with a sample item being "I always finish everything I start" (Cronbach's $\alpha = .81$). Neuroticism is conceptualized as the inverse of emotional stability. Whereas emotional stability refers to the overall level of adjustment and emotional resilience while experiencing stress and pressure (current sample Cronbach's $\alpha = .71$), Neuroticism refers to a vulnerability to experiencing negative emotions such as anxiety, worry, and depression under stress and pressure. Sample items of Neuroticism include "Sometimes I don't feel like I am worth much" and "I feel like I can't handle everything that is going on in my life." In the PSI, Extraversion is defined as the tendency to be sociable, outgoing, gregarious, warmhearted, expressive, and talkative (current sample Cronbach's $\alpha = .86$). An example item for Extraversion is "I spend a lot of time talking to other people." Openness is defined as receptivity to learning, new experiences, novelty, and change (current sample Cronbach's $\alpha = .77$). "I like to try new things" is a sample PSI item.

The narrow personality traits measured in the PSI include Self-Directed Learning, Optimism, Work Drive, and Sense of Identity. Self-Directed Learning refers to taking responsibility for learning activities in an autonomous, self-reliant manner without direction or guidance from others (current sample Cronbach's $\alpha = .82$). Self-directed learning is illustrated by the PSI sample item "I always take responsibility for my own learning." Optimism is defined as having an upbeat, hopeful outlook, especially concerning plans, prospects, people, and the future, even in the face of difficulty and adversity or as a tendency to minimize problems and persist in the face of setbacks (current sample Cronbach's $\alpha = .81$). An example PSI item for optimism includes "I believe that everything will turn out fine for me in the next 5 years." Work Drive is operationalized as being hard-working, industrious, and inclined to put in long hours, time, and effort to achieve at a high level (Cronbach's $\alpha = .85$). Work drive is exemplified by the sample item "Even if I won a million dollars, I would still work hard at school or my job." Sense of Identity is defined as having a clear sense of self or a strong sense of one's purpose, goals, and directions in life (current sample Cronbach's $\alpha = .85$). An example item for Sense of Identity includes "I have a definite sense of purpose in life."

Performance Anxiety Questionnaire. Cox and Kenardy's Performance Anxiety Questionnaire (PAQ; Cox & Kenardy, 1993; Appendix B) is a 20 item questionnaire designed to assess somatic (e.g., "I feel tense in my stomach") and cognitive symptoms (e.g., "I worry about my ability to perform") of musical performance anxiety (Cox & Kenardy, 1993). This self-report measure uses a five-point Likert-type scale to uncover the frequency from 1 (never) to 5 (always) that the individual experiences 10 somatic symptoms of performance anxiety (e.g., sweaty palm, heart palpitations) and 10 cognitive symptoms (e.g., excessive worry, apprehension about performances) across three specific musical performance settings including solo public

performances, group public performances, and rehearsals. The PAQ provides an independent score for each setting. The PAQ has good internal consistency with alpha ranging from .81 to .89 for the cognitive and somatic subscales (Cox & Kenardy, 1993; Levy, Castille, & Farley, 2011).

Dispositional Flow Scale. As opposed to a measure that solely captures the state of flow as it is occurring, the Dispositional Flow Scale (DFS-2; Jackson, Martin, & Eklund, 2008; Appendix A) is a measure designed to assess a trait-type view of flow, investigating the frequency with which people experience flow during an identified activity, using a 5-point Likert-type scale from 1 (never) to 5 (always). The DFS-2 is a 36-item self-report scale and provides a measure of the nine specific dimensions of flow (Challenge-Skill Balance, Action-Awareness Merging, Clear Goals, Unambiguous Feedback, Concentration on Task at Hand, Sense of Control, Transformation of Time, Autotelic Experience, and Loss of Self-Consciousness), thus providing rich descriptive data in identifying possible specific mediating factors for performance anxiety. A sample item of the DFS-2 includes “I am challenged, but I believe my skills will allow me to meet the challenge.” The DFS-2 has acceptable internal consistency with alphas ranging from .78 to .92, and has been shown to have good construct validity in measuring the state of flow (Jackson, Martin, & Eklund, 2008).

Proficiency Exams (“Juries”). Juries are exams given at the end of each semester (Fall and Spring) to ensure performance standards and progression in the School of Music. Jury examinations, or “juries” for short, are final semester performances for a panel of one to four music faculty, varying by instrument, with ninety percent of juries in this sample being made up of four members. Criteria for students who are required to complete jury exams include students who have not performed a recital for the semester and who are registered for two or more hours of credit in an applied music course. For jury performances, students are asked to prepare

anywhere from four to up to fifteen pieces (depending on their year and standing in their program), from which jury members then select one to two pieces to perform. Jury exams may also include scales or sight-reading depending on the applied instructor. Jury members evaluate aspects of the individual's performance in four main categories: technical ability (tone quality, precision, intonation, rhythm, and facility), musicality (excellent phrasing, dynamics, articulation, and other pertinent elements), performance practice (ability to perform in a stylistically and historically correct manner fitting the selected piece of music), and individual interpretation (individual interpretation, artistry, and musicality). Ratings are provided with a numerical scale of zero (unacceptable/fail) to three (high pass) (Appendix C). For the purposes of ease of statistical analysis, the zero to three scores were converted to one through four with a score of one being "unacceptable", a score of two equaling "low pass", a score of three being "pass", a score of four representing "high pass." Individual jury rater scores show good consistency among individual raters and across instruments (52 items; Cronbach's $\alpha = .93$). Juries must be completed to demonstrate progress in their area of study and determine if a student is allowed to advance in their program. Jury performance will be the key outcome measure of this study.

Procedure

Individuals were informed of the opportunity to participate in a study examining personality and performance through e-mail disseminated by the School of Music and through word-of-mouth from instructors, the primary researcher, and other students. The primary researcher was granted permission by the School of Music and from individual instructors to use class time for administration of assessment packets in four class periods, as well as access to students in computer and music labs during times between classes. After participants were

informed of the study, data was collected through paper-and-pencil administration of an assessment battery by the primary researcher. The assessment battery included three assessments (PSI, PAQ, DFS-2) and a basic demographic questionnaire with an estimated completion time of forty minutes. The assessment battery was pilot tested for a more precise estimated of completion time before classroom administrations.

Participants were informed of the potential risks and benefits of participation in the present study and advised that participation was completely voluntary and would not affect their current academic standing. Participants who volunteered to participate in the study were given a packet including informed consent documents which included a consent document allowing the researcher to access jury performance data upon completion of jury performances collected at the end of the semester, a demographics questionnaire (age, sex, ethnicity, major, program, academic standing, years of experience, number of years performing in public, desire to pursue a career in music) and the paper-and-pencil questionnaires. Upon completion of the paper-and-pencil questionnaires, the primary researcher collected these packets and all the documents were placed into confidential and secure envelopes. All participants were assigned a participant identification number in order to secure confidentiality.

Chapter 4

Results

A stepwise multiple regression analysis was conducted to examine the relationship between performance outcomes (jury scores), personality, performance anxiety, and flow using IBM SPSS, Version 20 statistical software. For this model, the Big Five personality traits (Extraversion, Conscientiousness, Neuroticism, Openness, and Agreeableness) were entered simultaneously on the first step, and the narrow personality traits (Work Drive, Self-Directed Learning, Optimism, and Sense of Identity), performance anxiety, and flow, were entered in a stepwise fashion according to their statistical contribution in explaining the variance in jury performance scores (Tabachnick & Fidell, 2001). Means, standard deviations, and correlations among variables were also calculated and are displayed in Table 1. The findings show that the highest scores for the Big Five and narrow personality traits were Sense of Identity ($M = 4.11$, $SD = .65$), Openness ($M = 4.03$, $SD = .63$), Optimism ($M = 3.99$, $SD = .62$), and Agreeableness ($M = 3.89$, $SD = .64$), with the lowest being Neuroticism ($M = 2.81$, $SD = .70$) and Extraversion ($M = 3.45$, $SD = .82$) for the sample in this study (Table 1).

It was found that there was a moderately strong positive correlation between Neuroticism and Performance Anxiety in a group ($r = .39$, $p < .001$) and solo ($r = .37$, $p < .05$) setting as well as positive weak correlation with Neuroticism and Performance Anxiety during practice ($r = .34$, $p < .05$). There were also significant correlations found between Neuroticism and several other variables including dispositional flow ($r = -.38$, $p < .001$), Identity ($r = -.39$, $p < .001$), Optimism ($r = -.42$, $p < .001$), Self-Directed Learning ($r = -.25$, $p < .05$), Drive ($r = -.24$, $p < .05$), and Extraversion ($r = -.34$, $p < .05$). Other inter-correlations relevant to the current study include: flow and Performance Anxiety during solo performances ($r = -.58$, $p < .001$), group-based

Performance Anxiety and practice-based Performance Anxiety ($r = .70, p < .001$), solo-based Performance Anxiety and practice-based Performance Anxiety ($r = .51, p < .001$), solo-based Performance Anxiety and group-based Performance Anxiety ($r = .53, p < .001$), and Optimism and Identity ($r = .62, p < .001$).

It was hypothesized for this study that there would be a relationship between performance outcomes and personality traits, performance anxiety, and flow. Performance outcomes were measured by jury ratings where performers in this sample scored an average jury score of 3 ($M = 3.21, SD = .57$) on a scale of 1 (unacceptable/fail) to 4 (high pass). The data did not support a significant overall prediction model of personality, dispositional flow, and performance anxiety, $F(7, 65) = 1.89, p = .085$ in predicting jury performance scores. Therefore, we were unable to reject the null hypothesis for describing the overall relationship among variables (see table 2). Despite the lack of statistical significance of the overall model, Work Drive ($\beta = .27$), and Solo Performance Anxiety ($\beta = -.31$) were shown to be the only significant and unique predictors of jury scores (Table 2). This finding suggests that as hypothesized, that performance anxiety specific to a solo performance setting has an inverse relationship with jury scores. Results also indicate a weak positive correlation between flow and jury scores ($r = .23, p < .05$), indicating that, as hypothesized, there is a relationship between these variables, despite a lack of significance in the overall prediction model. There was shown to be a strong negative correlation between performance anxiety in a solo context and dispositional flow ($r = -.58, p < .001$). There was no significant relationship found between jury scores, Extraversion, and Neuroticism as originally posited. Self-directed learning, Optimism, Sense of Identity, Flow, Performance Anxiety during practice, and Performance Anxiety during ensemble performances

were not significant predictors and did not enter into the equation at step 3 of the stepwise analysis.

Chapter 5

Discussion

The findings of the current study serve as a foundation for exploring the multiple factors impacting musical performance and thus contribute to the small, but growing body of research on this topic. Despite the lack of an overall significant prediction model of personality, performance anxiety, and dispositional flow as being predictors of musical performance, there were a number of interesting secondary findings. One of the secondary findings of this study suggests performance anxiety specific to a solo performance setting has, as predicted by previous studies (Kenny, 2011), an inverse relationship with performance suggesting that this is a significant factor impeding performance in high pressure or high stakes settings. Given the nature of jury performances as a solo performance, it is unsurprising that performance anxiety specific to solo performances was the only performance anxiety subscale that proved to be a significant predictor of jury scores for this sample. Performance anxiety in group and practice settings did not show enough significance to be included in the stepwise regression model. This finding has several implications. The lack of significance for performance anxiety in group and practice settings actually lends empirical support to the theory that performance anxiety hinders actual musical performance (as opposed to simply practicing music). Most previous literature for performance anxiety and musical performance has focused on symptoms and impairment of individuals experiencing performance anxiety and various forms of treatment (Fehm & Schmidt, 2006; Kenny, Davis, & Oates, 2004), with limited strong and clear evidence tracking the impact of performance anxiety on performance outcomes, thus making this an important finding of the current study.

Additionally, the differential experiences of MPA symptoms in practice, group performance, and solo performance contexts supports the theory that performance anxiety is not a global phenomenon, but rather, is related to the performance setting (Cox & Kenardy, 1993)--as there was no significant relationship found with performance anxiety specific to practice or group settings with jury performance; as there was for performance anxiety in solo settings. The differentiation of musical performance anxiety in a solo setting from performance anxiety in group and practice settings is additionally corroborated by the inter-correlational finding that the strongest correlation was between practice-based performance anxiety and ensemble-based performance anxiety—and weaker correlations between practice and group with the solo setting. The potentially different nature of performance anxiety in solo settings could have implications for the individual who experiences performance anxiety in solo settings in recognizing performance anxiety, as they may not heavily experience performance anxiety in other contexts (e.g., instrumentalists that rarely play solos compared to those who commonly play solo performances). The challenge in identifying individuals who experience performance anxiety specific to solo performances could also have an impact in implementing potential interventions aimed at reducing performance anxiety.

The above findings also substantiate performance anxiety as a target for possible intervention for music programs to help increase musical performance outcomes and protect against attrition. At one university School of Music, piano majors attended a workshop where participants were guided through a series of deep breathing, deep muscle relaxation, and visualization exercises resulting in lower ratings of performance anxiety (Huang, 2011). These techniques served to help teach participants to self-regulate during time of high anxiety, in part, by activating the parasympathetic nervous system. Thus, countering the effects of the

sympathetic nervous system responsible for many of the somatic symptoms of performance anxiety (e.g. increased heart rate & breathing, increased sweating, etc.).

Another point of possible intervention may include workshops aimed at teaching music educators how to best support students. As suggested by Sternbach (2008), possible interventions might take the form of educating major professors and instructors in the psychological responses to performance anxiety, and how to instruct students towards less harsh, judgmental, and critical thoughts about self and performance. Music educators could assist students in reframing their thoughts and attitudes towards positive and self-compassionate statements. Future studies may want to investigate the role of primary music educators and the way they approach and communicate messages around jury performances or other high stress performances such as recitals or auditions, as it is likely that such interactions may have an impact on the level of performance anxiety experienced by many music students. Drawing from sports psychology, music educators could take on the role of a coach when needed and interventions could be in the form of training for faculty and staff related to achieving optimal performance.

Dispositional flow did not significantly contribute to explaining the variance in jury scores in the overall prediction model. However, dispositional flow did show a significant, albeit weak positive correlation with jury performance suggesting a relationship between a music student's propensity to achieve a state of flow being related to increased jury scores. Thus, being able to regularly achieve a state of flow may have a positive impact on musical performance outcomes.

In addition, dispositional flow did show a moderately strong negative correlation with performance anxiety specific to a solo performance setting, which supports previous research suggesting that the construct of flow may serve as a moderating factor in performance anxiety

(Kirchner, Bloom & Skutnick-Henley, 2008). A considerable part of flow is the ability to become completely absorbed in a task (i.e., where the individual loses a sense of self, is fully engaged in a task, and may not notice internal cues, such as hunger cues, or external cues, such as distracting noises) that could interfere with performance.

The positive relationship between dispositional flow and better performance outcomes, as well as the negative relationship with dispositional flow and musical performance anxiety found by this study are suggestive of an interaction effect for dispositional flow and performance anxiety on performance outcomes—however, the sample size of this study was insufficient to test this possible mediation. It is recommended that future research be done in this area to further explore the relationship among these variables with larger populations.

Dispositional flow describes a person's ability to achieve a flow state; however, it is likely that one could become more practiced at achieving states of flow. Repeated mindfulness practices have been shown to help increase concentration through the practice of refocusing one's mind on a singular task or thought (Valentine & Sweet, 1999). Steyn (2013) also found that mindfulness training specific to acceptance and commitment training led to a reduction in anxiety, an increase in self-confidence, and overall improvement of the participant's well-being in a sample of undergraduate music students. Additionally, Lin, Chang, Zemon, and Midlarsky (2008) found a positive linear relation between Chan (Zen) meditation practice with performance quality and the reduction of performance anxiety. A possible point of intervention could be to implement mindfulness trainings in school of music to help increase students' self-confidence and help them to recover more quickly if concentration lags during a high stress performance.

Another finding of this study was the inclusion of the narrow personality trait of work drive as having a potential predictive relationship with musical performance outcomes. For the

application of Work Drive to the current study, Drive is likely to have a relationship to the amount of hours that someone might put into practicing and may speak to the propensity of one to overcome and work hard at achieving high-level goals despite obstacles. This may also relate to the findings of Ericsson, Krampe & Tesch-Romer (1993) that suggest that quantity of preparation and, more importantly, quality of practice is necessary to achieve high-level expert performance. There are also interesting implications for this study in the connection to previously discussed performance anxiety, as it has also been suggested that performance anxiety can negatively impact the quality of one's practice (Kirchner, Bloom, & Skutnick-Henley, 2008)..

In addition, the ability to predict musical performance from work drive also supports the predictive value of the narrow personality trait of work drive outside of the Big Five personality traits, none of which were found to be predictive of performance in this study. Given the limited sample size of the current study this relationship is particularly notable. The findings of this study also support those of Lounsbury, Sundstrom, Loveland, and Gibson, (2003) who discovered that after accounting for general intelligence and the Big Five personality measures that work drive accounted for the remaining portion of the variance in predicting course grade. This could be a future area of investigation in connecting work drive to hours spent preparing and practicing for jury exams. Despite a weak positive correlation, work drive also differentiated itself from the Big Five trait of conscientiousness, which did not show the same level of significance in predicting performance outcomes; contrary to previous studies where conscientiousness was predictive of better performance outcomes (Chamorro-Premuzic & Furnham, 2003). A possible explanation may be that intrinsic motivation, or drive to achieve, has a stronger relationship with performance outcomes than extrinsic motivation to want to follow the rules and do what others expect of them. It could also be proposed that the internal drive to

achieve might also serve to moderate the construct of performance anxiety, which has a significant negative impact on performance outcomes. Similar to experiences of flow, intrinsic drive to achieve may be related to level of absorption in a performance and work to reduce performance anxiety, thus having a positive impact on quality of performance. Work drive may also have a connection to flow in that this could be indicative of one's ability to fully immerse oneself in an activity and could be related to the quality of immersion, being able to push oneself to focus intensely.

The current sample of students enrolled in the School of Music for this study were found to be relatively high in openness, agreeableness, optimism, and having a strong sense of identity; while being relatively low in Neuroticism and Extraversion. The lack of significant predictive relationships with jury performance was counter to the initial hypotheses of this study and could be related to the specialization of the population under current investigation, where students high in neuroticism may have already left the program or failed to progress into a college music program after high school. Nevertheless, there were significant inter-correlational findings involving neuroticism and several other variables. The first of these findings is the moderately strong positive correlation found with neuroticism and all three performance anxiety subscales. This is consistent with previous literature that suggests a relationship between neuroticism and performance anxiety (Chamorro-Premuzic & Furham, 2002). Neuroticism is categorized as one's susceptibility to experiencing negative emotions such as anxiety, worry, and performance anxiety is the experience of distressful apprehension and worry surrounding performance. From this it is clear that there is a considerable overlap between these two constructs. It seems to follow that one would expect a stronger relationship than the moderate one found in this study, making one question if there is a possible third construct moderating between neuroticism and

performance anxiety. It could be hypothesized that the tendency to worry for someone who is high in neuroticism could serve an adaptive function resulting in someone potentially over-preparing for performances and moderating the effect—thus, possibly accounting for the lack of relationship in neuroticism predicting musical performance outcomes in this study.

Limitations

The current study has several limitations to be addressed. Firstly, the primary multivariate test was not found to be significant, making it difficult to conclude if the secondary results are significant trends or due to chance. The lack of non-significant multivariate results is likely due to the small sample size of the current study. Secondly, the sample for the current study may be self-selecting with those able to progress into a college music program sharing many of the same traits and restricting the sample. This study was conducted from a sample from a single mid-sized Southeastern university School of Music, which may serve to limit the overall generalizability to other populations. Additionally, the sample presented is made up of predominately White, freshmen college students with a mean age of 19 years old further impacting its generalizability. Moreover, this study was a convenience sample of current students enrolled in the School of Music, many who were informed of the chance to participate in the study by the primary researcher or their professors and in some cases given free class time to complete the survey, which may impact the sample of individuals who volunteered to participate in this study or their accuracy in completing questionnaire items. The culture of the School of Music at this specific university may also serve to impact the results of this study through the potential to recruit students based on certain personality or demographic characteristics. It is a likely possibility that, given these factors, the range of scores on the PSI is likely restricted leading to attenuated correlations. Given the limited eligibility criteria of this study (students

over the age of 18, currently enrolled in an applied music program, and who were required to complete jury exams), the inclusionary criteria of participants who completed all questionnaires, and the number of variables investigated in this study, the sample size is a considerable limitation in showing statistical significance. Jury rating scales were selected for use as the outcome measure as they had been already established and implemented by the School of Music; however, the narrow rating scale producing a score from one to four may not have created significant differentiation among scores and likely impacted the results.

Future Directions

Despite the aforementioned limitations, the present study provides a foundation for further research in the area of personality and musical performance, an area in which very little is known about the relationship among these variables. It is recommended for replication of the current study with an increased number of participants, which would serve to increase the statistical power and likely lead to significant multivariate results. Based on the foundational findings of this study, a suggested area for future study would be to replicate a reduced multivariate model investigating the predictive relationship of Work Drive, performance anxiety specific to a solo setting, Extraversion, and dispositional flow as these factors in a reduced model began to approach significance (Table 3).

In addition to the above-mentioned directions for future study in the body of the discussion, another area for future research is to examine the relationship between personality, satisfaction, and retention among music students in at specific School of Music program. The inclusion of satisfaction as a possible area of study could illuminate factors related to retention for an individual music program by investigating specific issues of fit within a School of Music program. This could help to further refine the selection process addressing issues in retention, as

well as potentially highlight areas for growth within a music program. Another area of future exploration may be to investigate the amount and quality of instruction from studio instructors or major professor, as this could serve to be a fruitful point of possible interventions in reducing the occurrence of performance anxiety.

Conclusion

Results from the current study add to the growing body of literature on predictors of high stakes musical performance outcomes. Optimal performance under high-pressure circumstances is a fundamental part of any established musician's experience as well as a determining factor for successful matriculation in most college music programs. Further investigation into possible predictors of performance outcomes could serve to enhance quality of performance and the quality of musicians' personal experiences through the reduction of performance anxiety for both music students and established musicians, as well as help reduce rates of music students failing to matriculate in their respective music programs.

List of References

- Ashton, M. C. (1998). Personality and job performance: The importance of narrow traits. *Journal of Organizational Behavior*, 19(3), 289-303. doi: 10.1002/(SICI)1099-1379(199805)19:3<289::AID-JOB841>3.0.CO;2-C
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta- analysis. *Personnel psychology*, 44(1), 1-26. doi: 10.1111/j.1744-6570.1991.tb00688.x
- Bergee, M. J. (1992). Certain attitudes toward occupational status held by music education majors. *Journal of Research in Music Education*, 40(2), 104-113. doi: 10.2307/3345560
- Brown, A., & Alley, J. M. (1983). Multivariate analysis of degree persistence of undergraduate music education majors. *Journal of Research in Music Education*, 31(4), 271-281. doi: 10.2307/3344630
- Chamorro-Premuzic, T., & Furnham, A. (2003). Personality traits and academic examination performance. *European Journal of Personality*, 17(3), 237-250. doi: 10.1002/per.473
- Conway, C., Eros, J., Pellegrino, K., & West, C. (2010). Instrumental music education students' perceptions of tensions experienced during their undergraduate degree. *Journal of Research in Music Education*, 58(3), 260-275. doi: 10.1177/0022429410377114
- Corley, A. L. (2003). *The predictive relationship of academic variables in three different learning environments to the intentions of music education majors to leave the degree program*. Denton, Texas. UNT Digital Library. Retrieved from <http://digital.library.unt.edu/ark:/67531/metadc4228/>.
- Cox, W., & Kenardy, J. (1993). Performance anxiety, social phobia, and setting effects in instrumental music students. *Journal of Anxiety Disorders*, 7, 49-60. doi:10.1016/0887-6185(93)90020-L

- Csikszentmihalyi, M.(1990). Flow: the psychology of optimal experience. *Harper Collins*, 1, 991.
- Davidson, J. W., Sloboda, J. A., & Howe, M. J. A. (1995-96). The role of parents and teachers in the success and failure of instrumental learners. *Bulletin of the Council for Research in Music Education*, no. 127, 40-44. doi:10.1177/0305735607086049
- De Raad, B. (2000). *The Big Five Personality Factors: The psycholexical approach to personality*. Hogrefe & Huber Publishers.
- Ericsson, K. A., Krampe, R. T., & Tesch-Romer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, 100(3), 363-406. doi: 10.1037/0033-295X.100.3.363
- Fehm, L., & Schmidt, K. (2006). Performance anxiety in gifted adolescent musicians. *Journal of anxiety disorders*, 20(1), 98-109. doi:10.1016/j.janxdis.2004.11.011
- Gavin, R. B. (2012). An exploration of potential factors affecting student withdrawal from an undergraduate music education program. *Journal of Research in Music Education*, 60(3), 310-323. doi: 10.1177/0022429412454662
- Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling & Development*, 72(3), 281-288. doi: 10.1002/j.1556-6676.1994.tb00935.x
- Grimes, S. K., & Antworth, T. (1996). Community college withdrawal decisions: Student characteristics and subsequent reenrollment patterns. *Community College Journal of Research and Practice*, 20(4), 345-361. doi: 10.1177/009155219902700204

- Huang, M. S. (2011). Coping with Performance Anxiety: College Piano Students' Perceptions of Performance Anxiety and Potential Effectiveness of Deep Breathing, Deep Muscle Relaxation, and Visualization. DOI:10.3200/JOEB.84.4.200-205
- Jackson, S. A., Martin, A. J., & Eklund, R. C. (2008). Long and short measures of flow: the construct validity of the FSS-2, DFS-2, and new brief counterparts. *Journal of Sport & Exercise Psychology*, 30(5), 561-587.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: a meta-analysis. *Journal of applied psychology*, 87(3), 530. doi: 10.1037/0021-9010.87.3.530
- Kemp, A. (1996). *The Musical Temperament*, Oxford, New York.
- Kena, G., Aud, S., Johnson, F., Wang, X., Zhang, J., et al. (2014). The Condition of Education 2014. NCES 2014-083. *National Center for Education Statistics*.
- Kenny, D.T. (2011). *The psychology of music performance anxiety*. Oxford: Oxford University Press.
- Kenny, D. T., Davis, P., & Oates, J. (2004). Music performance anxiety and occupational stress amongst opera chorus artists and their relationship with state and trait anxiety and perfectionism. *Journal of anxiety disorders*, 18(6), 757-777.
- Kenny, D. T., & Osborne, M. S. (2006). Music performance anxiety: New insights from young musicians. *Advances in Cognitive Psychology*, 2(2-3), 103-112.
- Kirchner, J. M., Bloom, A. J., & Skutnick-Henley, P. (2008). The relationship between performance anxiety and flow. *Medical Problems of Performing Artists*, 23(2), 59– 65.

- Komaraju, M., Karau, S. J., & Schmeck, R. R. (2009). Role of the Big Five personality traits in predicting college students' academic motivation and achievement. *Learning and Individual Differences, 19*(1), 47-52. doi:10.1016/j.lindif.2008.07.001
- Kroc, R., Howard, R., Hull, P., & Woodard, D. (1997, May). Graduation rates: Do students' academic program choices make a difference? Paper presented at the Association for Institutional Research Forum, Orlando, FL.
- Langendörfer, F., Hodapp, V., Kreutz, G., & Bongard, S. (2006). Personality and performance anxiety among professional orchestra musicians. *Journal of Individual Differences, 27*(3), 162-171. <http://dx.doi.org/10.1027/1614-0001.27.3.162>
- Levitz, R. S., Noel, L., & Richter, B. J. (1999). Strategic moves for retention success. *New directions for higher education, 1999*(108), 31-49. doi: 10.1002/he.10803
- Levy, J. J., Castille, C. M., & Farley, J. A. (2011). An Investigation of Musical Performance Anxiety in the Marching Arts. *Medical Problems of Performing Artists, 26*(1), 30.
- Levy, J. J., & Lounsbury, J. W. (2011). Big Five personality traits and performance anxiety in relation to marching arts satisfaction. *Work: A Journal of Prevention, Assessment and Rehabilitation, 40*(3), 297-302. doi: 10.3233/WOR-2011-1233
- Lin, P., Chang, J., Zemon, V., & Midlarsky, E. (2008). Silent illumination: a study on Chan (Zen) meditation, anxiety, and musical performance quality. *Psychology of Music, 36*(2), 139-155. doi:10.1177/0305735607080840
- Lounsbury, J., & Gibson, L. (2010). Technical manual for the Resource Associates Personal Style Inventory and Adolescent Personal Style Inventory. *Knoxville, TN: Resource Associates.*

- Lounsbury, J. W., Loveland, J. M., Sundstrom, E. D., Gibson, L. W., Drost, A. W., & Hamrick, F. L. (2003). An investigation of personality traits in relation to career satisfaction. *Journal of Career Assessment, 11*(3), 287-307. doi: 10.1177/106907270427027
- Lounsbury, J. W., Smith, R. M., Levy, J. J., Leong, F. T., & Gibson, L. W. (2009). Personality characteristics of business majors as defined by the big five and narrow personality traits. *Journal of Education for Business, 84*(4), 200-205. doi:10.3200/JOEB.84.4.200-205
- Lounsbury, J. W., Sundstrom, E., Loveland, J. M., & Gibson, L. W. (2003). Intelligence, “Big Five” personality traits, and work drive as predictors of course grade. *Personality and Individual Differences, 35*(6), 1231-1239. doi:10.1016/S0191-8869(02)00330-6
- Lounsbury, J. W., Tatum, H., Gibson, L. W., Park, S. H., Sundstrom, E. D., Hamrick, F. L., & Wilburn, D. (2003). The development of a Big Five adolescent personality inventory. *Journal of Psychoeducational Assessment, 21*(2), 111-133. doi: 10.1177/073428290302100201
- McCrae, R. R., & Costa, P. T., Jr. (1997). Personality trait structure as a human universal. *American Psychologist, 52*, 509–516. <http://dx.doi.org/10.1037/0003-066X.52.5.509>
- McCrae, R. R., Costa, Jr, P. T., & Martin, T. A. (2005). The NEO–PI–3: A more readable revised NEO personality inventory. *Journal of Personality Assessment, 84*(3), 261-270. doi: 10.1207/s15327752jpa8403_05
- Monte, C. F., & Sollod, R.N. (2003). *Beneath the mask: An introduction to theories of personality* (7th ed.) Hoboken, New Jersey: Wiley & Sons, Inc.
- Naydenova, I., Lounsbury, J. W., Levy, J. J., & Kim, J. Y. (2012). Distinctive Big Five and Narrow Personality Traits of Psychology Majors. *Individual Differences Research, 10*(3).

- O'Connor, M. C., & Paunonen, S. V. (2007). Big Five personality predictors of post-secondary academic performance. *Personality and Individual Differences*, 43(5), 971-990.
doi:10.1016/j.paid.2007.03.017
- Osborne, M.S., & Kenny, D.T. (2005). Development and validation of a music performance anxiety inventory for gifted adolescent musicians. *Journal of Anxiety Disorders*, 19, 725-751. doi: 10.1017/j.janxdis.2004.09.002
- Privette, G. (1983). Peak experience, peak performance, and flow: A comparative analysis of positive human experiences. *Journal of Personality and Social Psychology*, 45(6), 1361-1368. <http://dx.doi.org/10.1037/0022-3514.45.6.1361>
- Salmon, P. G. (1990). A psychological perspective on musical performance anxiety: a review of the literature. *Medical Problems of Performing Artists*, 5(1), 2-11.
- Sichivitsa, V. O. (2003). College choir members' motivation to persist in music: Application of the Tinto model. *Journal of Research in Music Education*, 51(4), 330-341. doi: 10.2307/3345659
- Spady, W. G. (1970). Dropouts from higher education: An interdisciplinary review and synthesis. *Interchange*, 1(1), 64-85. doi 10.1007/BF02214313
- Spady, W. G. (1971). Dropouts from higher education: Toward an empirical model. *Interchange*, 2(3), 38-62. doi: 10.1007/BF02282469
- Steptoe, A. (1989). Stress, coping and stage fright in professional musicians. *Psychology of Music*, 17(1), 3-11. doi: 10.1177/0305735689171001
- Steptoe, A., & Fidler, H. (1987). Stage fright in orchestral musicians: A study of cognitive and behavioural strategies in performance anxiety. *British Journal of Psychology*, 78(2), 241-249. doi: 10.1111/j.2044-8295.1987.tb02243.x

- Sternbach, D. J. (2008). Stress in the lives of music students. *Music educators journal*, 42-48.
doi: 10.1177/002743210809400309
- Steyn, M. H. (2013). *The impact of psychological skills and mindfulness training on the psychological well-being of undergraduate music students* (Doctoral dissertation, University of Pretoria).
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Needham Heights, MA: Allyn & Bacon.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of educational research*, 89-125. doi: 10.3102/00346543045001089
- Tinto, V. (2006). Research and practice of student retention: what next?. *Journal of College Student Retention: Research, Theory & Practice*, 8(1), 1-19. doi: 10.3102/00346543045001089
- Valentine, E. R., & Sweet, P. L. (1999). Meditation and attention: A comparison of the effects of concentrative and mindfulness meditation on sustained attention. *Mental Health, Religion & Culture*, 2(1), 59-70. <http://dx.doi.org/10.1080/13674679908406332>
- Van Kemenade, J. F., Van Son, M. J., & Van Heesch, N. C. (1995). Performance anxiety among professional musicians in symphonic orchestras: A self-report study. *Psychological reports*, 77(2), 555-562. doi: 10.2466/pr0.1995.77.2.555
- Vignoles, A. F., & Powdthavee, N. (2009). The socioeconomic gap in university dropouts. B.E. *Journal of Economic Analysis and Policy*, 9, 17-53. doi: 10.2202/1935-1682.2051
- Weiner, I. B., & Greene, R. L. (2008). *Handbook of personality assessment*. Hoboken, New Jersey: Wiley & Sons, Inc.
- Wesner, R. B., Noyes, R., & Davis, T. L. (1990). The occurrence of performance anxiety

among musicians. *Journal of Affective Disorders*, 18(3), 177-185. doi: 10.1016/0165-0327(90)90034-6

Wubbenhorst, T. M. (1994). Personality characteristics of music educators and performers. *Psychology of Music*, 22(1), 63-74. doi: 10.1177/0305735694221006

Appendix

Table 1

Descriptives and Correlations among all Study Variables

Variables	<i>M</i> (<i>S D</i>)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Jury Score	3.21 (.57)	...													
2. Agreeableness	3.89 (.64)	-.04	...												
3. Conscientious	3.53 (.72)	.01	.41**	...											
4. Neuroticism	2.81 (.70)	-.07	-.14	-.21*	...										
5. Openness	4.03 (.63)	.05	.21*	-.08	-.10	...									
6. Extraversion	3.45 (.82)	-.11	.23*	.02	-.34*	.30*	...								
7. Drive	3.47 (.70)	.21*	.33**	.25*	-.24*	.37*	.25*	...							
8. Self-Directed Learning	3.79 (.57)	.12	.23*	.06	-.25*	.53**	.36*	.50**	...						
9. Optimism	3.99 (.62)	-.14	.39**	.17	-.42**	.43**	.48**	.21*	.39**	...					
10. Sense of Identity	4.11 (.65)	-.03	.47**	.27*	-.41**	.34*	.35*	.48**	.50**	.62**	...				
11. Flow	3.49 (.50)	.23*	.19	.17	-.38**	.11	.27*	.23*	.23*	.18	.28*	...			
12. PA practice	2.09 (.56)	-.09	.04	-.09	.34*	-.09	-.05	-.10	-.14	-.13	-.18	-.23*	...		
13. PA group	2.29 (.64)	-.03	-.07	-.13	.39**	-.11	-.06	-.01	-.14	-.20*	-.14	-.25*	.70**	...	
14. PA solo	3.05 (.75)	-.28**	.04	-.05	.37*	-.09	-.18	-.09	-.20*	-.16	-.15	-.58**	.51**	.53*	...

Note: ** indicates significance at $\alpha = .01$; * indicates significance at $\alpha = .05$; $N = 73$

Table 2

Results of the Stepwise Multiple Regression Analyses by Jury Score

Variables by Model	<i>B</i>	<i>SE B</i>	<i>b</i>	<i>t</i>	<i>p</i>
Model 1					
Overall Model	3.675	.777		4.732	.000
Agree	-.030	.123	-.034	-.243	.808
Conscientious	-.003	.107	-.003	-.025	.980
Neuroticism	-.097	.105	-.121	-.924	.359
Openness	.088	.116	.098	.759	.451
Extraversion	-.122	.094	-.176	-1.302	.197
Model 2					
Overall Model	3.479	.766		4.542	.000
Agree	-.067	.121	-.075	-.549	.585
Conscientious	-.043	.107	-.056	-.407	.685
Neuroticism	-.071	.104	-.088	-.683	.497
Openness	.010	.120	.011	.081	.935
Extraversion	-.135	.092	-.195	-1.471	.146
Drive	.222	.110	.275	2.012	.048
Model 3					
Overall Model	3.946	.761		5.187	.000
Agree	-.033	.118	-.037	-.277	.783
Conscientious	-.049	.103	-.063	-.481	.632
Neuroticism	.016	.106	.020	.155	.878
Openness	-.006	.116	-.007	-.052	.959
Extraversion	-.150	.089	-.217	-1.693	.095
Drive	.221	.106	.274	2.083	.041
PAs	-.232	.093	-.306	-2.493	.015

N = 73; PAs = Performance Anxiety Solo Setting

Table 3

Reduced Variables Multiple Regression Analyses by Jury Score for Future Study

Variables by Model	<i>B</i>	<i>SE B</i>	<i>b</i>	<i>t</i>	<i>p</i>
Model 1					
Overall Model	2.745	.325		8.440	.000
Drive	.138	.092	.181	1.507	.137
Model 2					
Overall Model	3.155	.424		7.434	.000
Drive	.122	.092	.160	1.337	.186
PAs	-.115	.077	-.178	-1.487	.142
Model 3					
Overall Model	3.425	.482		7.109	.000
Drive	.155	.095	.203	1.624	.109
PAs	-.127	.078	-.197	-1.630	.108
Extraversion	-.101	.086	-.147	-1.172	.245
Model 4					
Overall Model	2.694	.743		3.625	.001
Drive	.139	.096	.182	1.455	.151
PAs	-.074	.088	-.114	-.841	.403
Extraversion	-.121	.087	-.177	-1.390	.169
Flow	-.200	.155	-.181	1.287	.203

N=73; PAs= Performance Anxiety Solo Setting

Appendix A

LONG Dispositional Flow Scale (DFS-2)–General

Please answer the following questions in relation to your experience in your chosen activity. These questions relate to the thoughts and feelings you may experience during participation in your activity. You may experience these characteristics some of the time, all of the time, or none of the time. There are no right or wrong answers. Think about how often you experience each characteristic during your activity, then circle the number that best matches your experience.

When participating in: _____ (Name Event/Activity)

Never= 1 Rarely= 2 Sometimes= 3 Frequently=4 Always=5

- 1 I am challenged, but I believe my skills will allow me to meet the challenge 1 2 3 4 5
- 2 I do things correctly without thinking about trying to do so 1 2 3 4 5
- 3 I know clearly what I want to do 1 2 3 4 5
- 4 It is really clear to me how I am going 1 2 3 4 5
- 5 My attention is focused entirely on what I am doing 1 2 3 4 5
- 6 I have a sense of control over what I am doing 1 2 3 4 5
- 7 I am not concerned with what others may be thinking of me 1 2 3 4 5
- 8 Time seems to alter (either slows down or speeds up) 1 2 3 4 5
- 9 I really enjoy the experience of what I am doing 1 2 3 4 5
- 10 My abilities match the challenge of what I am doing 1 2 3 4 5
- 11 Things just seem to happen automatically 1 2 3 4 5
- 12 I have a strong sense of what I want to do 1 2 3 4 5
- 13 I am aware of how well I am doing 1 2 3 4 5
- 14 It is no effort to keep my mind on what is happening 1 2 3 4 5
- 15 I feel like I can control what I am doing 1 2 3 4 5
- 16 I am not concerned with how others may be evaluating me 1 2 3 4 5
- 17 The way time passes seems to be different from normal 1 2 3 4 5
- 18 I love the feeling of what I am doing and want to capture this feeling again 1 2 3 4 5
- 19 I feel I am competent enough to meet the demands of the situation 1 2 3 4 5
- 20 I do things automatically, without thinking too much 1 2 3 4 5
- 21 I know what I want to achieve 1 2 3 4 5
- 22 I have a good idea about how well I am doing while I am involved in the task/activity 1 2 3 4 5
- 23 I have total concentration 1 2 3 4 5
- 24 I have a feeling of total control over what I am doing 1 2 3 4 5
- 25 I am not concerned with how I am presenting myself 1 2 3 4 5
- 26 It feels like time goes by quickly 1 2 3 4 5
- 27 The experience leaves me feeling great 1 2 3 4 5
- 28 The challenge and my skills are at an equally high level 1 2 3 4 5
- 29 I do things spontaneously and automatically without having to think 1 2 3 4 5
- 30 My goals are clearly defined 1 2 3 4 5
- 31 I can tell by the way things are progressing how well I am doing 1 2 3 4 5
- 32 I am completely focused on the task at hand 1 2 3 4 5

33 I feel in total control of my actions 1 2 3 4 5

34 I am not worried about what others may be thinking of me 1 2 3 4 5

35 I lose my normal awareness of time 1 2 3 4 5

36 The experience is extremely rewarding 1 2 3 4 5

Appendix B

Performance Anxiety Questionnaire

Below are a number of statements that are often associated with being anxious. Based on your personal experience indicate how frequently you experience these thoughts and feelings in music performances. Please use the scale below and circle the number which best reflects how frequently you experience these responses in each performance situation: practice, group public performance (eg. orchestra), and solo public performance.

Never=1 Infrequently=2 Sometimes =3 Frequently=4 Always=5

Performance Setting: Practice Group Solo

1. I worry about my performance	12345	12345	12345
2. I feel that I lack confidence	12345	12345	12345
3. I feel tense in my stomach	12345	12345	12345
4. I feel well prepared for my performance	12345	12345	12345
5. I feel nervous	12345	12345	12345
6. I have sweaty palms	12345	12345	12345
7. I worry about my ability to perform	12345	12345	12345
8. I feel in control of the situation	12345	12345	12345
9. I experience palpitations	12345	12345	12345
10. My muscles feel tense	12345	12345	12345
11. I find it hard to concentrate	12345	12345	12345
12. I become preoccupied with other things	12345	12345	12345
13. I feel that I may be sick	12345	12345	12345
14. I feel that I may faint	12345	12345	12345
15. I feel that I will make a mistake and ruin the performance	12345	12345	12345
16. I find that I have a dry mouth	12345	12345	12345
17. I find that I shake	12345	12345	12345
18. I feel apprehensive about potential errors in my performance	12345	12345	12345
19. I need to urinate more often	12345	12345	12345
20. I am over critical of my performance	12345	12345	12345

Briefly explain how you control/cope with anxiety before and during a performance. Do you feel that anxiety has a detrimental affect on your performance? Please explain.

Appendix C

JURY RUBRIC				
TRAIT	HIGH PASS 3	PASS 2	LOW PASS 1	UNACCEPTABLE 0
The student demonstrates acceptable technical facility.	Consistently performs with excellent tone quality, precision, intonation, rhythm, and facility; literature at or above level.	Consistently performs with appropriate tone quality, precision, intonation, rhythm, and facility; literature appropriate to level.	Occasionally performs with deficiencies in tone quality, precision, intonation, and rhythm; literature at or below level.	Consistently performs with deficiencies in tone quality, precision, intonation, rhythm, and/or facility.
The student exhibits faithfulness to the musical aspects of the score.	Consistently performs with excellent phrasing, dynamics, articulation, and other pertinent elements.	Consistently performs with appropriate phrasing, dynamics, articulation, and other pertinent elements.	Occasionally performs with appropriate phrasing, dynamics, articulation, and other pertinent elements.	Consistently performs without appropriate phrasing, dynamics, articulation, and other pertinent elements..
The student utilizes proper performance practice.	Demonstrates excellent knowledge of and skill in performing in a stylistically and historically correct manner.	Demonstrates appropriate knowledge of and skill in performing in a stylistically and historically correct manner.	Occasionally demonstrates appropriate knowledge of and skill in performing in a stylistically and historically correct manner.	Demonstrates little or no knowledge of correct style and/or performance practice.
The student communicates his/her individual interpretation, artistry, and musicality.	Demonstrates excellent individual interpretation, artistry, and musicality.	Demonstrates appropriate individual interpretation, artistry, and musicality.	Occasionally demonstrates individual interpretation, artistry, and musicality.	Demonstrates little or no individual interpretation, artistry, and musicality.

This is given to every 5th BA student, BM student, MM student, Artist Certificate student.

Vita

Whitney Statham was born in Norman, OK. She attended the University of Oklahoma for her undergraduate education and graduated in 2005 with a degree in psychology. Whitney then completed her M.S. in counseling at the University of Kansas in 2010. Whitney attended the University of Tennessee in pursuit of a doctor of philosophy degree in counseling psychology. She will graduate in August 2016 after completion of a year-long clinical internship at Iowa State University Student Counseling Services.