Fall 12-2021

An Analysis of Effective Practice Strategies for the Performing Undergraduate University-Level Pianist

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AN ANALYSIS OF EFFECTIVE PRACTICE STRATEGIES FOR THE PERFORMING UNDERGRADUATE UNIVERSITY-LEVEL PIANIST

by

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B.M. May 2020, Old Dominion University

A Thesis Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirements for the Degree of

MASTER OF MUSIC EDUCATION

OLD DOMINION UNIVERSITY
December 2021

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ABSTRACT

AN ANALYSIS OF EFFECTIVE PRACTICE STRATEGIES FOR THE PERFORMING UNDERGRADUATE UNIVERSITY-LEVEL PIANIST

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The intent of this study was to provide awareness of the trends surrounding piano practice pedagogy as determined by students either immersed in a university piano program or graduates thereof. The areas of study include a historical context of university music programs and the field of piano pedagogy, trends of imitative instruction, the importance of qualitative and quantitative practice, and the discovery of piano practice routines of collegiate pianists. This research project was approved for an IRB exemption by the Old Dominion University College of Arts and Letters.

Within this study, the subjects were either graduates of a collegiate piano department or students in a public four-year university music program, private four-year university music program, community college music program, or music conservatory music program (N = 160). The subjects completed a survey within Qualtrics that contained an informed consent statement. The survey was limited to subjects in the United States.

The subjects answered questions about their specific involvement in collegiate piano studies and discussed individual practice habits regarding levels of practice efficiency, daily time spent practicing, motivating factors for individual practice, extramusical factors that affect daily practice, specific practice strategies taught by their private teachers, and practice methods employed without instruction. The data were analyzed using the Qualtrics survey application.

The results from the survey highlight the need from applied piano teachers to provide more specific instructions regarding practice techniques.

This thesis is dedicated to all university piano majors.

ACKNOWLEDGEMENTS

I wish to acknowledge my absolute gratitude for my professors and mentors who have guided me in my education studies over the last six years. My collegiate success is due to having a team of professors behind me who have inspired, championed, and challenged me throughout the duration of my undergraduate and graduate studies. To Marilyn Forman, thank you for teaching me how to practice well and conquer beautiful works of music. Because of you, my senior recital was something I am very proud of.

I am deeply grateful for my thesis Director and Professor Dr. Douglas Owens, who put in hours of hard labor on this thesis. This research began over a year ago in his introductory graduate research class and has transformed into the reputable document that it is today because of him. I would also like to thank my professors John Toomey, Dr. Taryn Raschdorf, Dr. Nancy Klein, Dr. Douglas Owens, and Marilyn Forman for always providing wisdom and keeping their doors open to anything I have needed during my academic pursuits.

I would like to thank my thesis committee, Dr. James Kosnik and Dr. Taryn Raschdorf for taking the time away from their intense schedules to serve on the committee for my research.

Lastly, I would like to thank the piano students and graduates who participated in my survey and were excited to answer questions honestly about the specific details surrounding the very important aspect of "practice" within our musical lives.

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CHAPTER I

INTRODUCTION

Upon entering the realm of piano studies at the university level, students potentially realize that their future success depends on how often they practice. When examining the field of piano pedagogy research, there is a severe lack of research regarding the specific characteristics of efficient practicing (Bolton, H., 1937; Cash et al., 2009; Newman, W., 1950). Within their lessons, private piano instructors often explain the material that students should be practicing, but little evidence exists that the instructors are providing specific instructions on how to practice. It has become clear that a model for effective practicing is needed for university-level pianists who wish to continue their studies.

Statement of the Problem

Multiple literature and academic studies exist that are devoted to piano playing. Books written on technique, music theory, ear training, and counterpoint can be found in a library music section including countless scholarly articles discussing certain aspects of piano playing and pedagogy. Given the centrality of practicing in a musician's life, one would expect a significant amount of literature would be available discussing the specific features of successful practice sessions. Regular practice is necessary for a musician to progress in their abilities, yet there are many facets of practicing that have yet to be researched. The scarce amount of practice-specific information in piano pedagogy creates a problem.

Need for the Study

There is a lack of research that conveys the specific characteristics of efficient piano practicing. This study presents the practice techniques used by music conservatory piano

students, community college piano students, four-year private, and four-year public university piano students which may assist aspiring academic pianists to experience added success in their endeavors.

Purpose of the Study

The purpose of this study is to examine the specific practice techniques of college piano majors at various academic levels to gain insight regarding effective practice strategies for the college level pianist.

Significance of the Study

The significance of the study includes the presentation of data that can inform a variety of university level pianists toward the accomplishment of their musical goals, especially regarding individual practice habits.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Although individual performance time varies, it is not a secret among musicians that the time spent practicing their craft far outweighs the number of minutes performing by hundreds of hours (Cash et al., 2009; Davidson et al., 1997). The average length of a piano recital varies according to purpose. The outcomes of effective practicing include an intense familiarity with and memorization of the music, accurate and musical performances, added confidence while performing, and ability to focus on the overall music needs. This element of musicianship is invisible to the audience and is of particular interest in the field of music education research. Many agree that what happens in the practice room has a direct relationship with subsequent performances, therefore research concerning the specific characteristics of successful practice methods is imperative (Barry & McArthur, 1954, p. 54; Kostka, 2002, p. 153).

Due to the highly personalized nature of piano practice, there is a lack of documentation on the specific characteristics of individual practice approaches. There is a great amount of existing literature that discusses the skills needed to learn how to play the piano, but these materials lack a methodical set of guidelines on how to practice (Bolton, 1937; Maynard, 2006). Some researchers posit that providing good models are effective strategies for learning, yet there are so few available models of effective practice (Cash et al., 2009; Gaunt, 2008; L'Hommidieu, 1992).

It is customary that students who major in music at the collegiate level must complete several requirements before graduating with a Bachelor's degree in Music; perhaps the most prominent requirement being a capstone or senior recital on their primary instrument. Because

university level applied piano lessons tend to focus almost exclusively on the student's impending capstone recital, other important factors in the music learning process may be overlooked, to the detriment of the student post-graduation (Newman, 1950). Classical pianists are taught to perform notated works in a detailed manner which can impart the idea that music is not flexible and must be practiced in a specific way (Bailey, 1992; Woosley, 2012). Performance based instruction can impede musical understanding and creativity. Considerable attention must be given to the efficacy of specific piano practice techniques to further this area of study (Chaffin et al., 2003; Gaunt, 2008).

A History of the Music Conservatory and Piano Practice Pedagogy

The history of piano playing and piano teaching is bound to the development of the instrument itself (Spangler, 1950, p. 2). It was not until the year 1700 that the Italian instrument maker Bartolomeo Cristofori designed the piano as we recognize it today (Isacoff, 2011, p. 28). The prevailing keyboard instruments were the clavichord and harpsichord, birthed in the late fourteenth century (Libin, 1989, p. 5). Johann Sebastian Bach played a pianoforte at the Silberman Company in the 1740s and praised its beautiful sound, but criticized its heavy touch (Adlung, 2011). Muzio Clementi (1752-1832), the first prominent teacher and composer of the pianoforte, composed his Sonata Op. 2 in 1773; it was the initial composition intended specifically for the pianoforte (Kochevitsky, 1967, p. 1). Wolfgang Amadeus Mozart (1756-1791) first encountered the new instrument during the winter of 1774-75, just a few years after the birth of Ludwig van Beethoven (Isacoff, 2011, p. 40).

The first music conservatories were created and established throughout Europe in the 18th and 19th centuries and served as the first academic institutions where music could be studied

outside of the church (Gandre, 2001; Hendrich, 1978). Fifteen universities devoted to the professional study of music were created between 1796 and 1882, including:

- Paris Conservatoire de Musique (France, 1796)
- Prague Conservatory (Czechoslovakia, 1811)
- Hochschule fur Musik Karlsruhe (Germany, 1812)
- Hochschule fur Musik Wien (Austria, 1817)
- Hochschule fur Musik Berlin (Germany, 1821)
- Royal Academy of Music (England, 1822)
- Conservatoire Royal de Musique in Brussels (1832)
- Conservatoire de Musique de Geneve (Switzerland, 1835)
- Leipzig Conservatorium (Germany, 1843)
- St. Petersburg Conservatory (Russia, 1862)
- Moscow Conservatory (Russia, 1866)
- Budapest Conservatory (Hungary, 1875)
- II Conservatorio di Musica (Italy, 1869)
- Royal College of Music (England, 1882)
- Sibelius Academy (Finland, 1882) (Gandre, 2001, p. 4).

With the rise of the middle class during the Industrial Revolution, more people wanted access to music performances and music education. The establishment of music conservatories in the United States was modeled after the European conservatory yet contained unique American characteristics: private administration and endowment rather than state support,

affiliations with liberal arts colleges and universities, and academic degree offerings (Fitzpatrick, 1963; Grausam, 2005). The following conservatories were the apart of the earliest American music schools and still exist today:

- Oberlin Conservatory of Music (Oberlin, OH, 1865)
- New England Conservatory of Music (Boston, MA, 1867)
- Cincinnati Conservatory of Music (Cincinnati, OH, 1867)
- Peabody Conservatory of Music (Baltimore, MD, 1874)
- Eastman School of Music (Rochester, NY, 1919)

The earliest authors of piano practice methods focused on innovative approaches toward playing this new and powerful instrument as it began to appear in the late 18th century (Wallick, 2013, p. 9). By 1900, piano pedagogy was built on three generally recognized principles:

1.) Only fingers should be used; consequently, the upper parts of the arm should be fixated.
2.) Technical training is a purely mechanical procedure, requiring hours of daily practicing.
3.) The teacher is the absolute authority (Kochevitsky, 1967, p. 3).

This prevailing school of thought was based on European methods that focused on performance and technique and neglected other important areas of study, such as the cognitive, emotional, and psychological factors that influenced a student's piano practice habits (Meyers, 2014, p. 1). The first teacher training programs in the United States began to investigate the different psychological and sociological factors that affect applied music students. Because of this change, the relationship between the student and teacher became more pedagogically focused (Norman, 1968). Piano teachers recognized a need to develop more inclusive teaching methods that no longer focused solely on technique, such as added focus on the developmental and mental needs of the student (Mueller, 1995).

The professional field of music education is concerned with training a musician to teach in classroom settings. Piano pedagogy is focused specifically on the specialized training of piano teaching (Crappell, 2019). The development of piano pedagogy programs in the United States provided pianists with the comprehensive knowledge to teach musicianship through the piano as well as teach piano privately (Camille Fu, 2007; Fitzpatrick, 1963; Hash, 2019). Piano pedagogy is a reasonably new academic discipline (Grausam, 2005, p. 8) and it is important to review multiple areas of piano pedagogy research to gain a thorough understanding of the field.

Inefficiencies of Imitative Teaching

Many claims have been made throughout the history of the piano regarding the most efficient way to develop a strong piano performance. Camp (1981) states the following:

> At the beginning of the twentieth century, numerous teachers claimed that piano performance could be developed only by using "secrets" from the old European masters. In practice, these secrets amount to little more than the nineteenth century "direct imitation" approach. With this approach, students learned interpretations of works by imitating their teachers, who learned them from their teachers in a kind of apostolic succession. But as a means of developing musicianship, this venerable method is limited because the underlying principles of music understanding is limited. (p. 1)

Traditional approaches of private music instruction are illustrated by the transmission of knowledge from the teacher to the student. Imitation is the predominant learning vehicle by which the student can aim to achieve excellence in their playing (Burwell, 2005; Coutts, 2019). However, imitation is "an obsolete method of learning" (Freundlich, 1977, p. 18) because it fails to foster musical understanding and independence (Freundlich, 1977; Camp, 1981). Instead of the piano lesson being used as a tool to develop musicianship and musical interpretation, the

pianist is trained to strive for the highest level of performance by spending hours in the practice room focusing on note accuracy, fluidity, speed, musical interpretation, and memorization of their repertoire. The direct imitative approach to piano study does not promote musical independence and only serves to limit the student's musical flexibility (Camp, 1981; Coutts, 2019). Learning by imitation is the reason many classically trained pianists at the collegiate level can play incredibly advanced pieces of music but fail when asked to improvise a simple melody without any sheet music (Woosley, 2012; Bailey, 1992). Significant skills such as the ability to play by ear, sight read, improvise, and play in ensembles are often not a part of the undergraduate piano lesson because their importance to performance and traditional learning is not comprehended or valued. The emphasis on teaching these important musical qualities is often left to undergraduate music theory and ear training classes where their specific implications on piano playing cannot be adequately addressed (Camp, 1981; Lhevinne, 1924; Newman, 1956).

Quality Versus Quantity

Aspects of piano practice at the collegiate level have been sparsely researched, perhaps due to the individual nature of piano practice, yet it is researched in other contexts such as band and orchestra (Cash et al., 2009; Gaunt, H., 2008). The art of practicing music is both a learning activity as well as a creative one, and it is important to understand the difference between quality practice and logging hours spent in the practice room. Because the repertoire requirements for a college pianist are demanding and time consuming (Woosley, 2012, p.10), an extravagant amount of time can be consumed by repetitive, mechanical practice with no concern for musical clarification and comprehension (Camp, 1981; Marcus, 1969).

The doling out of practice assignments, versus the achievement of actual goals, appears to be a persistent approach in piano pedagogy (Kostka, 2002, p. 146, Cash, 2009, p. 11), which is contrary to research evidence. Practice is most efficient when it is goal oriented, and the goals are related to the specific tasks being practiced (Locke, E. A., & Bryan, J. F., 1966, p. 290; Cash, 2009, p. 11; Miksza, 2006, p. 309). Musical goals are not exclusively related to quantity of practice, but qualitative practice which involves personal engagement (Hallam & Jorgensen, 2016, p. 451). The quality of practice is entirely dependent on utilizing deliberate practice strategies and is linked with quantity to produce successful results (Jorgenson, 2009, p. 9). However, defining the meaning of deliberate and intentional practice sessions is challenging. Piano professors in higher education, who are experts in their field, seldom take into consideration that novice undergraduate pianists may not possess the musical schema to employ effective practice strategies that foster their musical independence (Gaunt, 2008; Hallam, S. & Jorgensen, H., 2012; Kostka, 2002; Pike, 2017). Research studies at two different European conservatoires investigate the relationship between lessons on the primary instrument (piano) and individual practice. Gaunt (2008) found that students arrived at the conservatory were unable to self-regulate in their personal practice sessions. Although practice plans were discussed with their private teachers, the quality of individual practice was generally judged by performance outcomes in the lesson. Gaunt's findings indicate that there was nothing specific in the teaching process to guide the skill of autonomous learning during private practice (Gaunt, 2008, p. 237). Similar findings were discovered by Koopman et al. (2007), who discusses the shortcomings of the "master-apprentice" model, a long-standing tradition based on age-old methods as applied to music instruction. In this model, the master (piano professor) and apprentice (piano student) roles are fixed: The master is an expert at the trade and the apprentice comes to the master to

learn. Regarding this persistent trend in piano pedagogy, Koopman et al., (2007), describes the challenges of this model as follows:

> This model may have major didactical shortcomings, as our investigations indicate. Aims transcending the immediate focus on specific pieces and techniques do not easily come into the picture, and students receive too little information to be equipped to practice in a well-structured, methodical, and process-directed way. (p. 392)

Researchers propose that the current characterization of the term "practice" is ambiguous, and therefore difficult to assess (Cash, 2009, p. 312, Ericcson et al., 1993, Oare, 2011). Clear practice methods and expectations should be discussed, created, and applied with the individual student in mind. These must be shared with the students, based on the technical and musical needs of the student, the available practice time, and the desired outcomes. Putting process before outcome and encouraging the student to develop their own musical understanding are ways private teachers can help students foster musical independence. These practice methods must be monitored and adapted as needed over time.

The Significance of Mental Practice

Mental practice is typically defined as the intellectual rehearsal of a specific task without the presence of physical elements (Copper et al., 1994, p. 481), and is an indispensable tool for efficient piano practice. Audiating a piece of music from start to finish, imagining the entire performance, and concentrating on the sound rather than the physical movements that produce the sound are examples of mental practice. This approach can assist musicians learning to perform music by constructing a tonal picture that can be drawn upon during performance (Highben & Palmer, 2004, p. 59). Not all practice must be done while physically playing the instrument. If one is to be fully immersed in their craft, a substantial amount of time must be

spent in intellectual concentration as well. Ruben-Rabson (1941), a pioneer in the field of musical mental practice, states that interjecting periods of mental rehearsal offers a literal " . . . pause that refreshes . . . " (p. 599). This is because once the hands stop moving, the brain can fully focus on reorganizing problem areas in the music (Ruben-Rabson, 1941, p. 599). Being properly trained in the technique of mental practice is of utmost importance. McHugh-Grifia (2011) reports that subjects claimed that their teachers provided no instruction on how to efficiently use mental practice and they wished they had been introduced to the concept at a younger age (p. 74). Mental practice is a helpful tool for memory retention and previous research supports that further study in the field of mental practice for the performing pianist is necessary for both research and pedagogy (McHugh-Grifia, 2011, p. 77).

Pianists' Thoughts on Practicing

Pianist Leon Fleisher questioned any practice which places emphasis solely on technique, maintaining that "a problem worked out merely from the technical standpoint will not support the weight of a musical conception" (Fleisher, 1963, p. 12). Having an audiated tonal direction is imperative when developing an efficient practice routine. Fleisher stated that aural awareness is the ultimate problem for any musician, pianists especially, and that pianists must be taught to have a musical understanding rather than be made to master technique (Fleisher, 1963, p. 16). In addition to Fleisher, there are numerous other pedagogues who believe that students who practice in a purely mechanical manner are training themselves in "musical absentmindedness, with the idea that if they keep it up long enough, they will eventually be able to play music" (Fletcher, 1959, p. 16). Much of today's piano instruction is geared towards the public performance. Private piano lesson goals (even at the collegiate level) should be focused on

teaching students to become musically literate as opposed to teaching a specific set of pieces for upcoming recitals (Chronister, 1977; Neuhaus, 1958).

Ambiguity surrounds the subject of efficient practicing. Although pianists and pedagogues state the outcomes needed to produce artistic and thorough results, specific outlines on how to achieve these outcomes are scarcely found. Pianist Alexander Lambert stated that "good practice is intelligent repetition" (Lambert, as cited in Cooke, 1999, p. 386). While that may be true, what differentiates intelligent repetition from unintelligent repetition? In a discussion on practice methods, Newman asserts that efficient practice is the product of accurate practice. The brain cannot distinguish between mistakes and deliberate efforts, and mistakes can be learned just as precise methods are (Newman, 1950, p. 47). However, human error is unavoidable in the practice room—so how can this be countered? Newman suggests that "hesitation rather than err" (Newman, 1950, p. 106) is the most efficient way to train the brain to practice with accuracy and minimal mistakes. Anticipating the mistake in advance is a difficult task but will yield desired results in the practice room with time and patience (Newman, p. 106). The scarce amount of practice-specific information in piano pedagogy creates a problem in need of exploration. Though informative, these sources do not explain in detail the practice routines of collegiate pianists, which this study aims to discover.

CHAPTER III

METHODOLOGY

Purpose of the Study

The purpose of this study is to examine the specific practice techniques of undergraduate college level piano students and graduates of the music conservatory, community college, four-year private, and four-year public university music programs to gain insight regarding effective practice strategies for the college level pianist.

Research Questions

The study aimed to answer six research questions:

RQ1: What are the similarities of practice strategies between the applied piano students at the conservatory, community college, private university, and public music university level? Conversely, what are the differences?

RQ2: In what manner do the practice strategies of the subjects align with current studies on efficient practice?

RQ3: What extramusical factors exist that influence the way they practice?

RQ4: In what way do the subjects credit their successes or failures on stage to their practice habits?

RQ5: What instructions, if any, were presented on how to practice?

RQ6: What are the subjects' motivating factors for practicing?

Limitations of the Study

This study is limited to researching the practice characteristics of current conservatory piano students, community college piano students, four-year public university music program

students, four-year private university music program students at the undergraduate level, and graduates of the aforementioned programs.

Data Analysis Procedures

The data were analyzed using the statistical tools within Qualtrics. The open-ended responses were coded individually.

Selection of the Sample Population

The subjects in this study represent piano students and graduates of piano study within five distinct categories. The participants were be recruited by email via university music school directory pages obtained through the College Music Society Directory of Music Facilities (university faculty). The Facebook group, “Private Piano Teachers” was utilized to recruit piano teachers who currently study at the university or community college level. The data were gathered from the following sample populations:

1.) Undergraduate Music Conservatory piano students.

2.) Community College piano students.

3.) Four-year public university music program piano students.

4.) Four-year private university music program piano students.

5.) Graduates that were piano students at any of the above music program types.

Assumptions

It is assumed that the subjects will answer the questions completely and honestly. It is also assumed that the survey participants meet the criteria of the study.

CHAPTER IV

RESULTS

Research Questions

The study aimed to answer six major research questions:

RQ1. What are the similarities of practice strategies between the applied piano students at the conservatory, community college, private university, and public music university level? Conversely, what are the differences?

RQ2. In what manner do the practice strategies of the subjects align with current studies on efficient piano practice?

RQ3. What extramusical factors exist that influence the way they practice?

RQ4. In what way do the subjects credit their successes or failures on stage to their practice habits?

RQ5. What instructions, if any, were presented on how to practice?

RQ6. What are the subjects' motivating factors for practice?

Description of Subjects

The 21-question survey was completed by 160 undergraduate music conservatory piano students, community college piano students, four-year public university music program piano students, four-year private university music program piano students, and graduates of the piano department at any of the above music program types. Of the subjects, 66% were between 18 and 25 years of age. Those between ages 25 to 30 represented 8% of the subject population; ages 30 to 35 represented 4% of the subject population; ages 35 to 40 represented 4% of the subject population; ages 40 to 45 represented 7% of the subject population; and those subjects ages 46 and above represented 11% of the subject population.

Specific data of the subject's gender are displayed in Table 1. Information on the subjects' race and ethnicity are displayed in Table 2.

Table 1.

Gender of the Subject Population (*n* = 160).

Gender	Percentage of Subjects	Number of Subjects
Male	45.63%	73
Female	50%	80
Non-binary/third gender	1.88%	3
Prefer not to disclose	2.50%	4

Table 2.

Race or Ethnicity of the Subject Population (*n* = 160).

Race or Ethnicity	Percentage of Subjects	Number of Subjects
American Indian	0%	0
Asian	30.32%	47
Black or African American	3.23%	5
Hispanic or LatinX	5.81%	9
Native Hawaiian or Pacific Islander	0%	0
White	60.65%	94

In survey question five, the subjects described their current position in relation to collegiate piano programs. Of the subjects, 33% reported graduating with a degree from any of the above music program types, 31% were four-year private university music program students, 16% were four-year public university music program students, 2% were community college piano students, and 18% were undergraduate music conservatory piano students.

Similarities and Differences Between Practice Strategies

The subjects that responded to questions about their personal piano practice strategies. The survey questions that pertained to individual piano practice strategies were as follows:

Q6. How many hours a day do you practice piano?

Q8. Does or did your private piano instructor discuss specific practice strategies in your private lessons?

Q12. On a scale of 1 (highly inefficient) to 5 (highly efficient), at what level of efficiency would you rate your piano practicing?

Q16. What extra-musical factors exist that influence the way that you practice piano?

The subjects credited specific practice strategies to their successes as performers. In question six, the subjects reported the number of hours per day spent practicing piano. The distribution of daily practice time, regardless of the subjects' current position in relation to collegiate piano programs, appears in Figure 1.

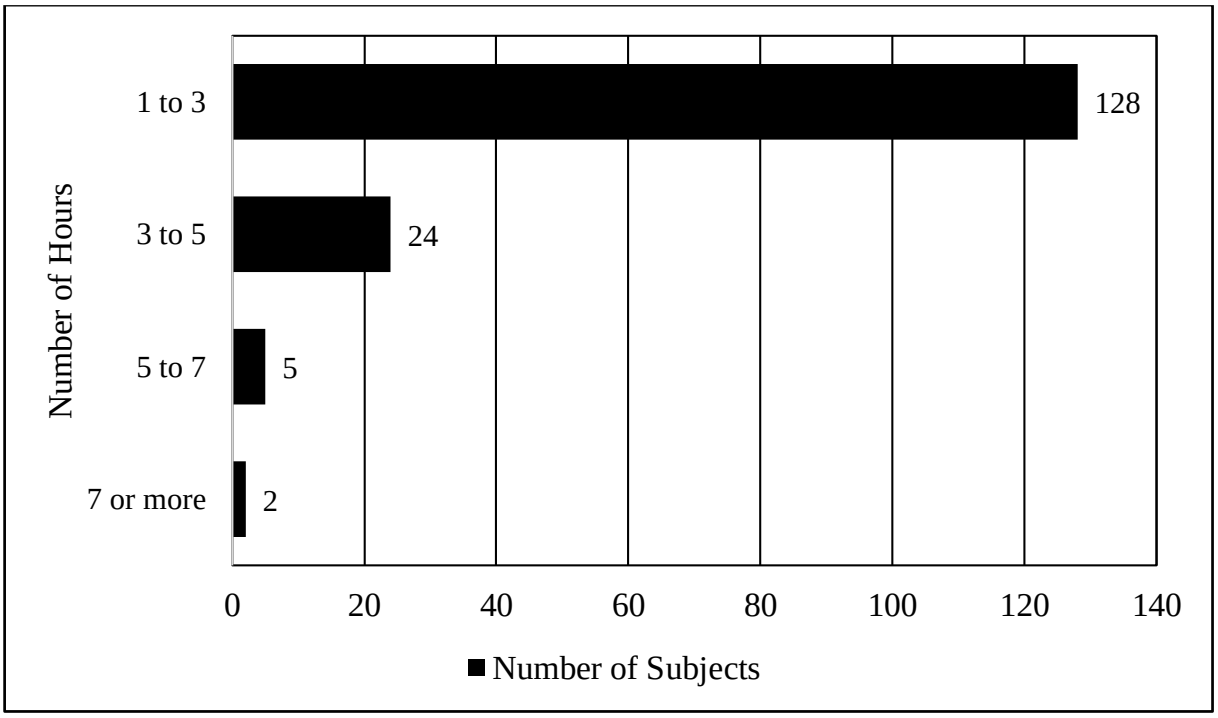

Figure 1. Distribution of daily practice time among subjects (*n* = 159).

The graduates of collegiate piano departments (*n* = 52) reported the following data regarding hours spent practicing piano: 85% reported spending one to three hours a day practicing, 11% reported spending three to five hours a day practicing, and 4% reported spending five or more hours a day practicing. No subjects repoerted spending seven or more hours a day practicing. The numerical distribution of the practice time among graduates of collegiate piano departments is displayed in Figure 2.

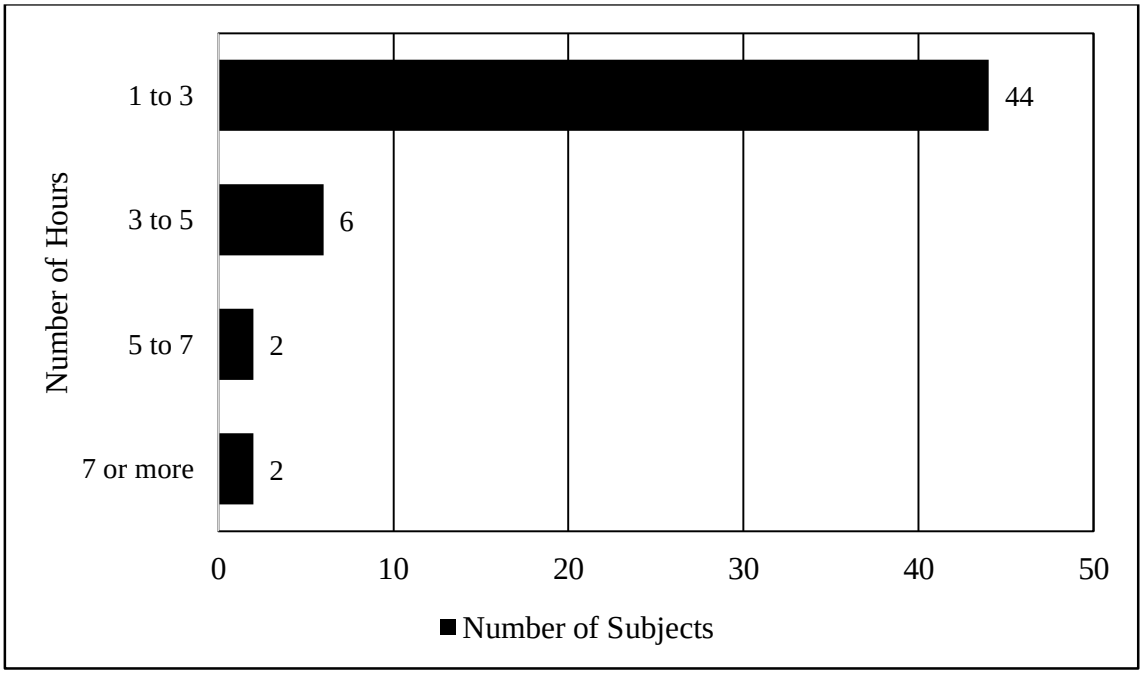

Figure 2. Distribution of daily practice time of graduates of the piano departments at any of the music program types (*n* = 52)

The private four-year university piano students (*n* = 50) reported the following data regarding hours spent practicing piano: 88% reported practicing for one to three hours a day, and 12% reported practicing for three to five hours a day. No subjects reported practicing five or more hours a day. The numerical distribution of the practice time among the private four-year university students is displayed in Figure 3.

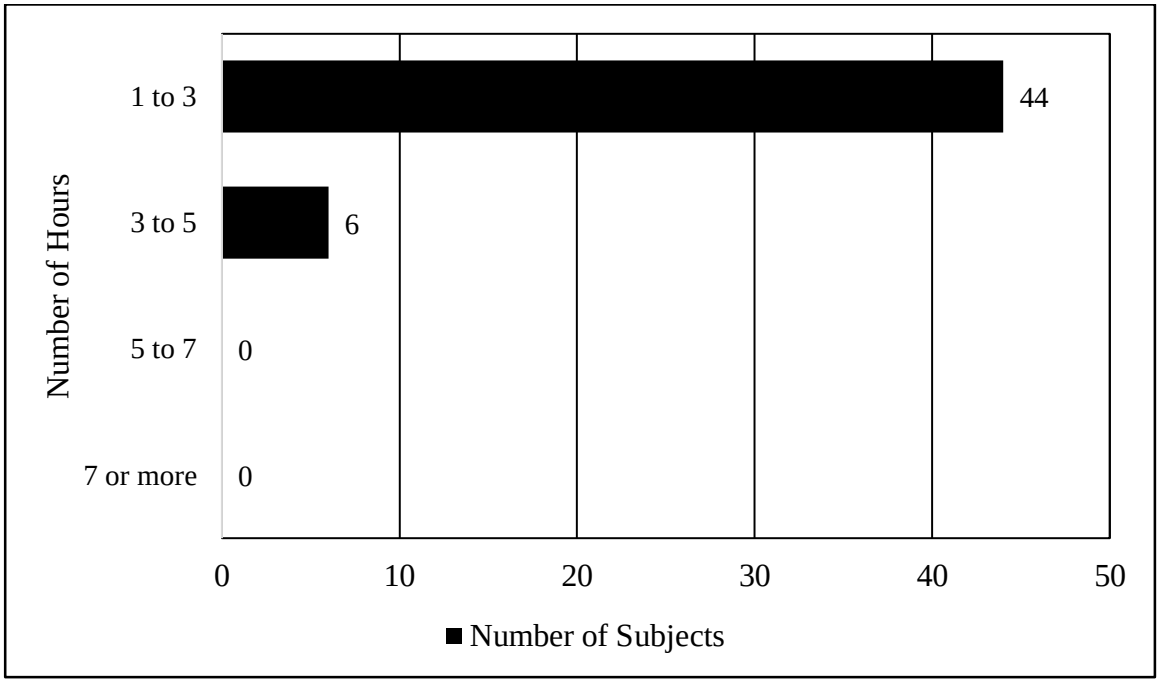

Figure 3. Distribution of daily practice time of private four-year university piano students (*n* = 50).

The four-year public university students (*n* = 26) reported the following data regarding hours spent practicing piano: 65% reported practicing for one to three hours a day practicing, 23% reported practicing for three to five hours a day, 8% reported practicing for five to seven hours a day, and 4% reported practicing for seven or more hours a day. The numerical distribution of the practice time among four-year public university piano students is displayed in Figure 4.

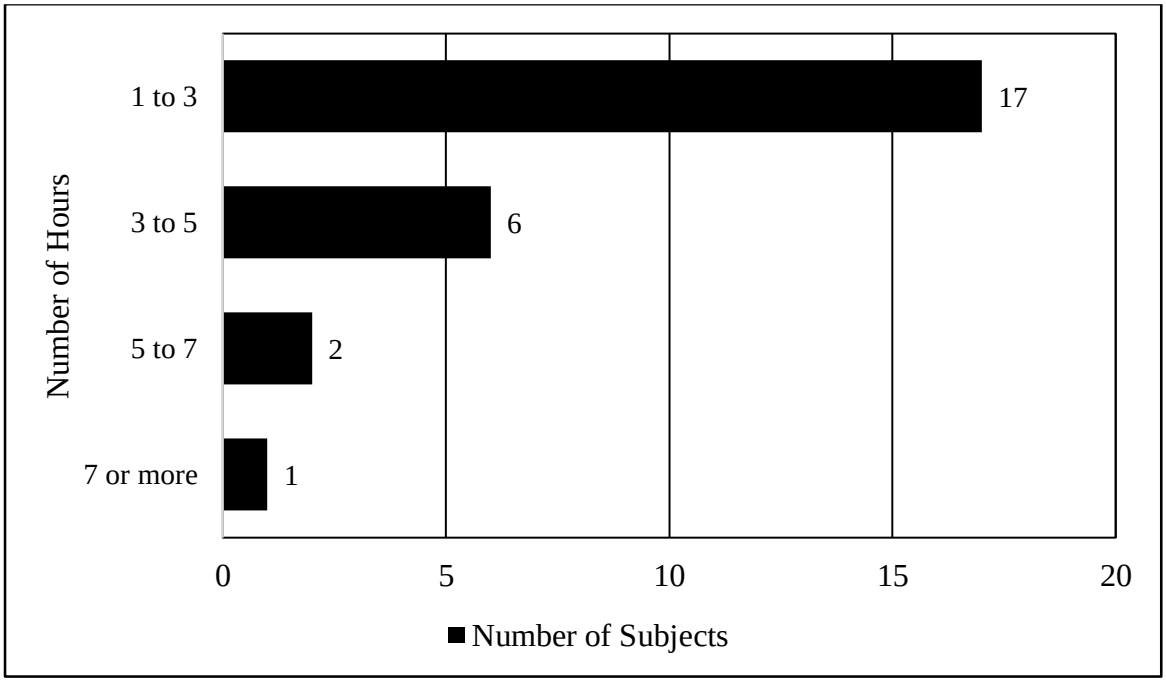

Figure 4. Distribution of daily practice time of public four-year university piano students (*n* = 26).

Of the community college piano student subjects (*n* = 3), 100% reported practicing for one to three hours per day. The music conservatory undergraduate piano students (*n* = 28) reported the following data: 71% reported practicing for one to three hours a day, 21% reported practicing for three to five hours a day, 4% reported practicing from five to seven hours a day, and 4% reported practicing for seven or more hours a day. The numerical distribution of the practice time among the music conservatory piano students is displayed in Figure 5.

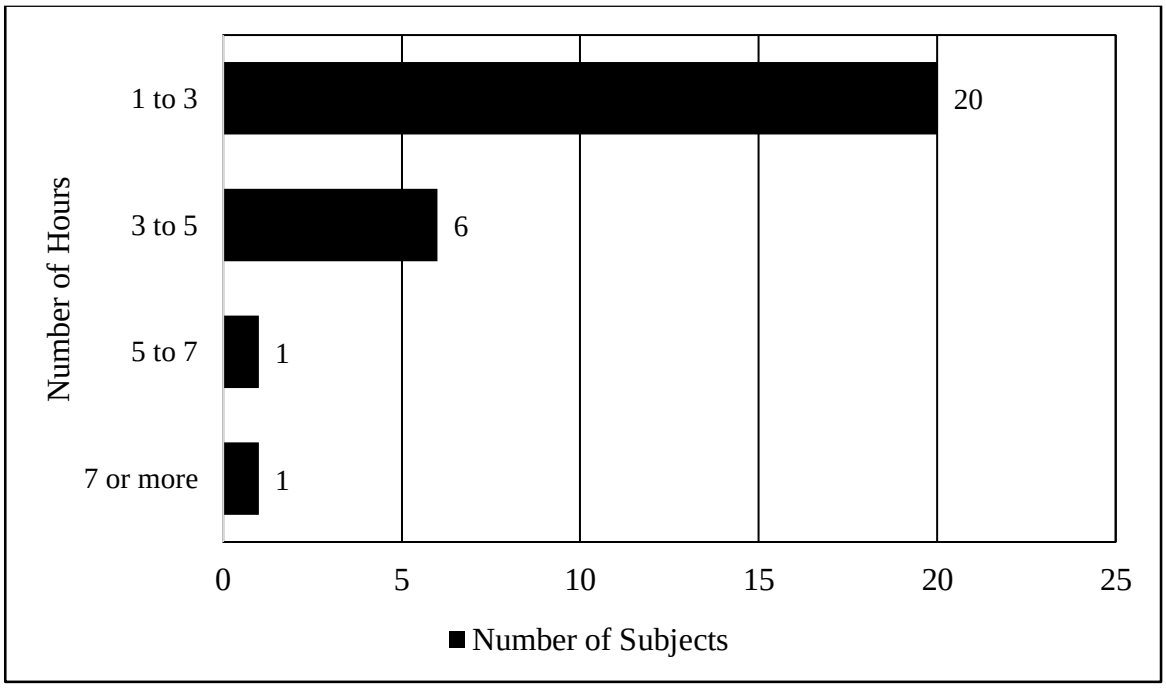

Figure 5. Distribution of daily practice time of music conservatory undergraduate piano students (*n* = 28).

In question eight, the subjects (*n* = 159) determined whether their private piano teachers discussed specific practice strategies in their private lessons. Of the subjects, 100% responded to question eight. Of the graduates of a collegiate piano department 77% answered "yes," and 23% of the current four-year private university music students 70% reported "yes." Of the current four-year public university music students, 96% reported "yes." Of the current community college music students, 67% reported "yes." Of the current undergraduate music conservatory students, 82% reported "yes." Specific data of the subjects' responses is displayed in Table 3.

Table 3.

Discussion of Specific Piano Practice Strategies in Private Lessons

Category	"Yes" Answers	"No" Answers	Total Number of Subjects
Graduates of a collegiate piano department	77% (*n* = 40)	23% (*n* = 12)	52
Four-year private university piano students	70% (*n* = 35)	30% (*n* = 15)	50
Four-year public university piano students	96% (*n* = 25)	4% (*n* = 1)	26
Community college piano students	67% (*n* = 2)	33% (*n* = 1)	3
Music conservatory piano students	82% (*n* = 23)	18% (*n* = 5)	28

Question twelve surveyed the efficiency of the pianists' practicing on a scale of 1 (highly inefficient) to 5 (highly efficient). The level of practice efficiency, regardless of the subjects' current position in relation to collegiate piano programs, is displayed in Figure 6.

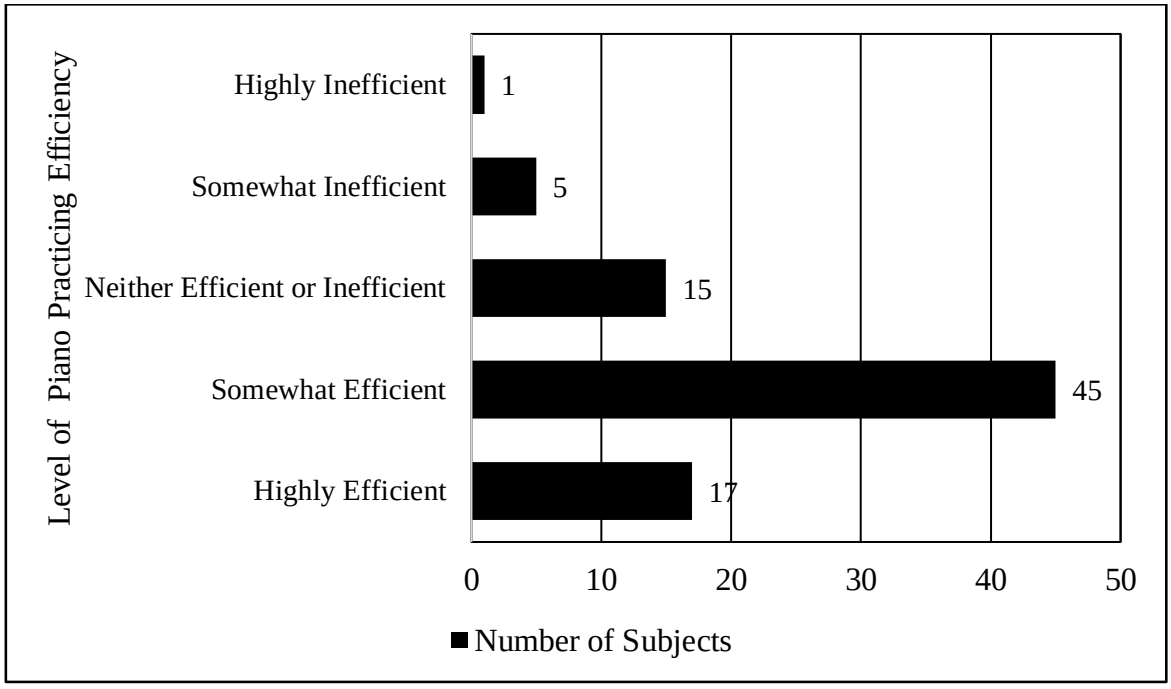

Figure 6. Level of piano practicing efficiency of piano subjects (*n* = 83).

Of the graduates of collegiate piano departments (*n* = 26), 81% reported either highly efficient or somewhat efficient practicing, while 19% reported neither efficient or inefficient, or somewhat efficient practicing. The numerical distribution of the level of practice efficiency of the collegiate piano department graduates is displayed in Figure 7.

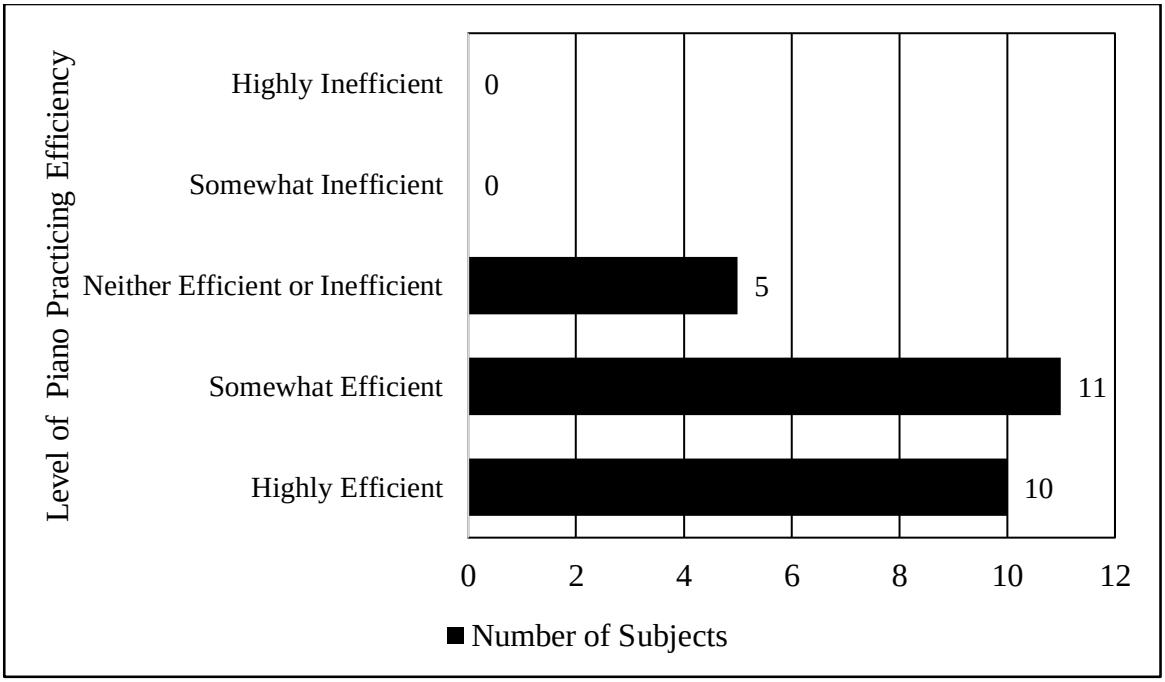

Figure 7. Level of piano practicing efficiency of the graduates of the piano departments at any of the music programs (*n* = 26).

Of the four-year private university piano students (*n* = 24), 88% reported either highly efficient or somewhat efficient practicing, 8% reported neither inefficient or efficient, and 4% reported somewhat inefficient practicing. No subjects reported highly inefficient practicing. The numerical distribution of the level of practice efficiency of the four-year private university piano students is displayed in Figure 8.

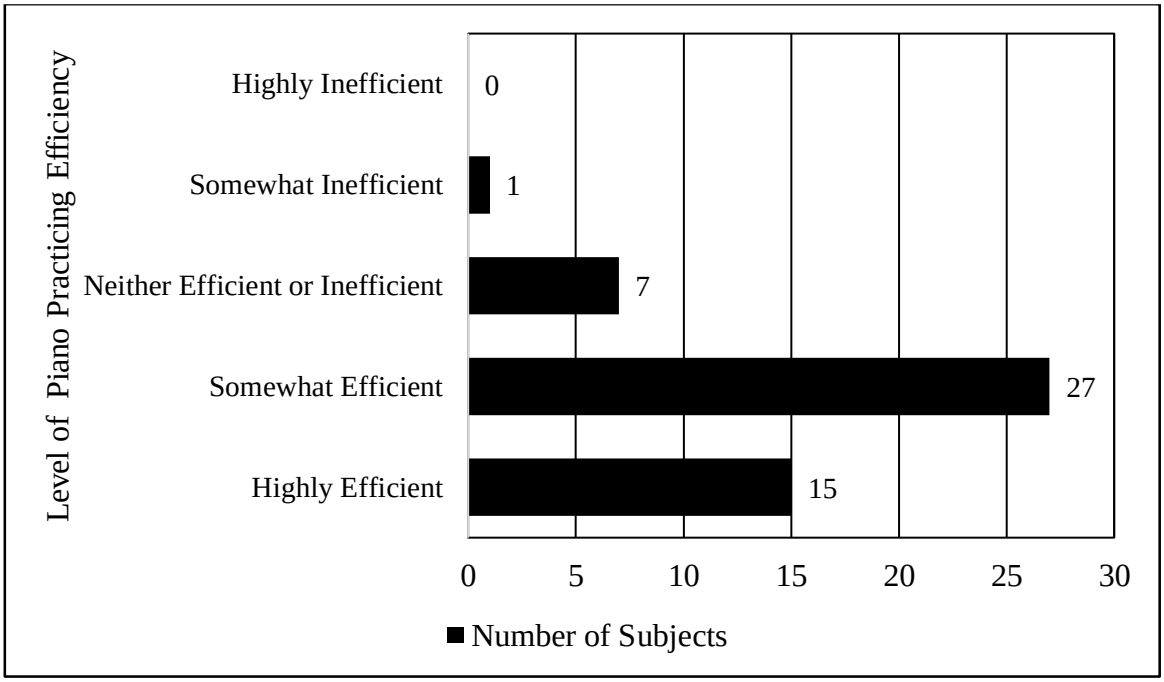

Figure 8. Level of piano practicing efficiency of the four-year private university piano students (*n* = 24).

Of the four-year public university music students (*n* = 17), 65% reported either highly efficient or somewhat efficient practicing, 18% reported neither efficient or inefficient practicing, and 17% reported somewhat or highly inefficient practicing. The numerical distribution of the level of practice efficiency of the four-year private university piano students is displayed in Figure 9.

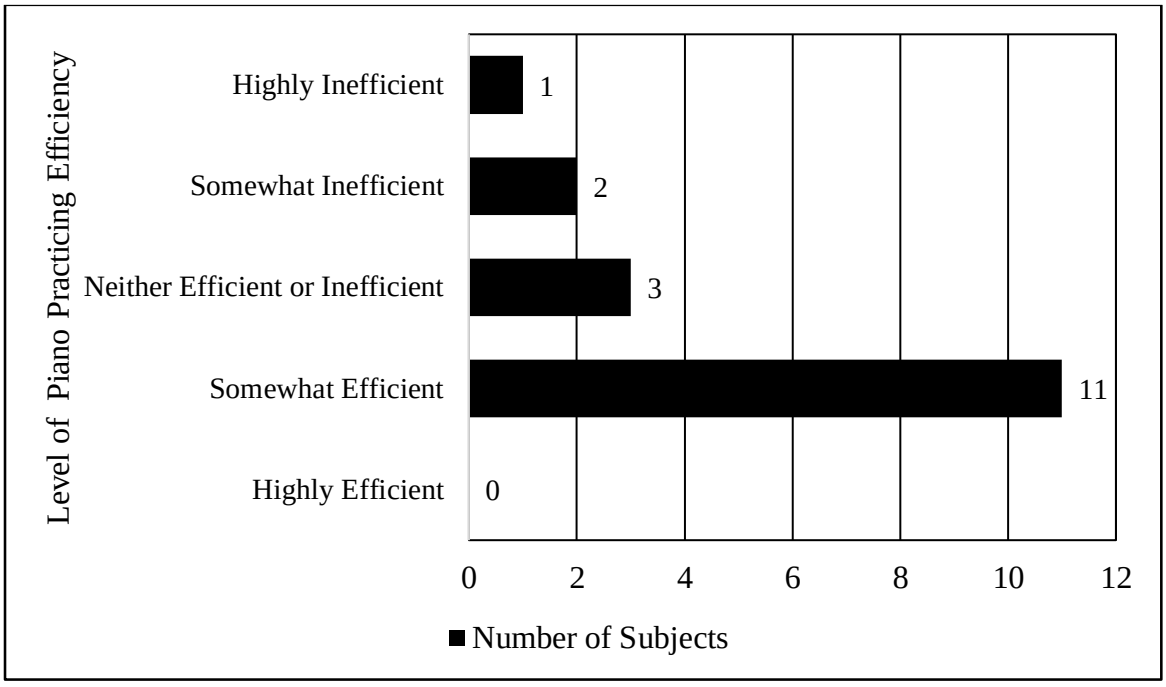

Figure 9. Level of piano practicing efficiency of the four-year public university piano students (*n* = 17).

The community college piano student (*n* = 1) reported neither inefficient or efficient levels of piano practice efficiency. Of the four-year music conservatory students (*n* = 14), 64% reported highly efficient or somewhat efficient practicing, 22% reported neither inefficient or efficient practicing, and 14% reported somewhat inefficient or highly inefficient practicing. The numerical distribution of the level of practice efficiency of the four-year music conservatory piano students is displayed in Figure 10.

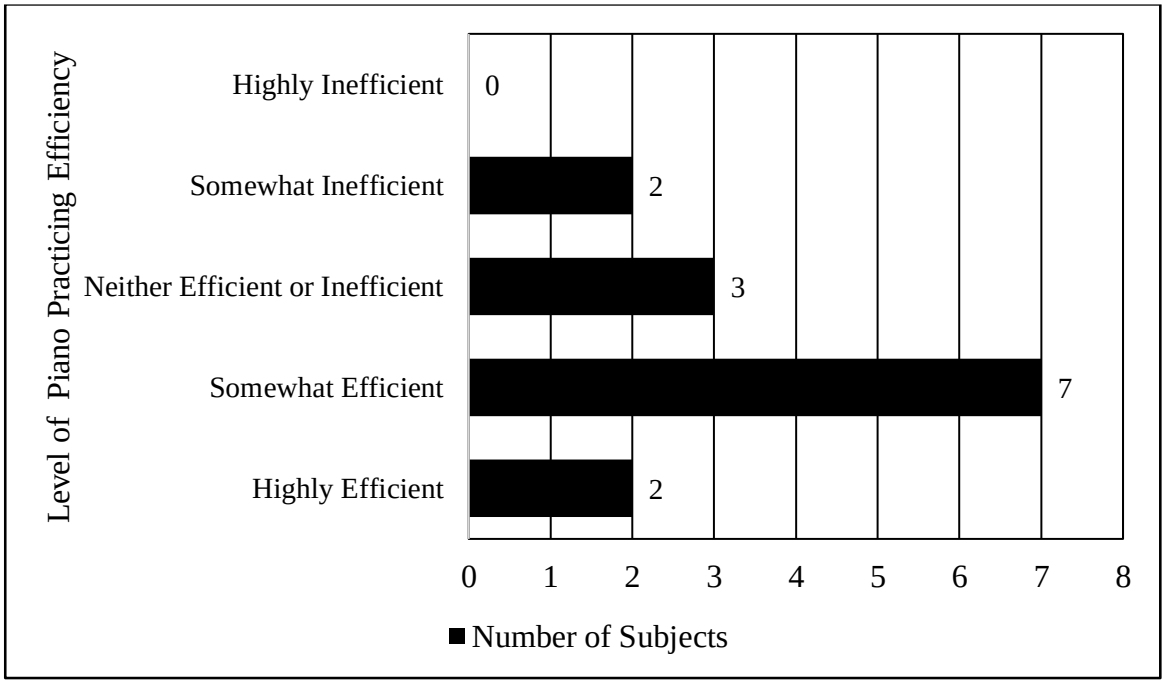

Figure 10. Level of piano practicing efficiency of the music conservatory piano students (*n* = 14).

In question sixteen, the subjects selected the extramusical factors that influence their practice habits. The results of extramusical factors, regardless of the subjects' current position in relation to collegiate piano programs, are reported in Figure 11.

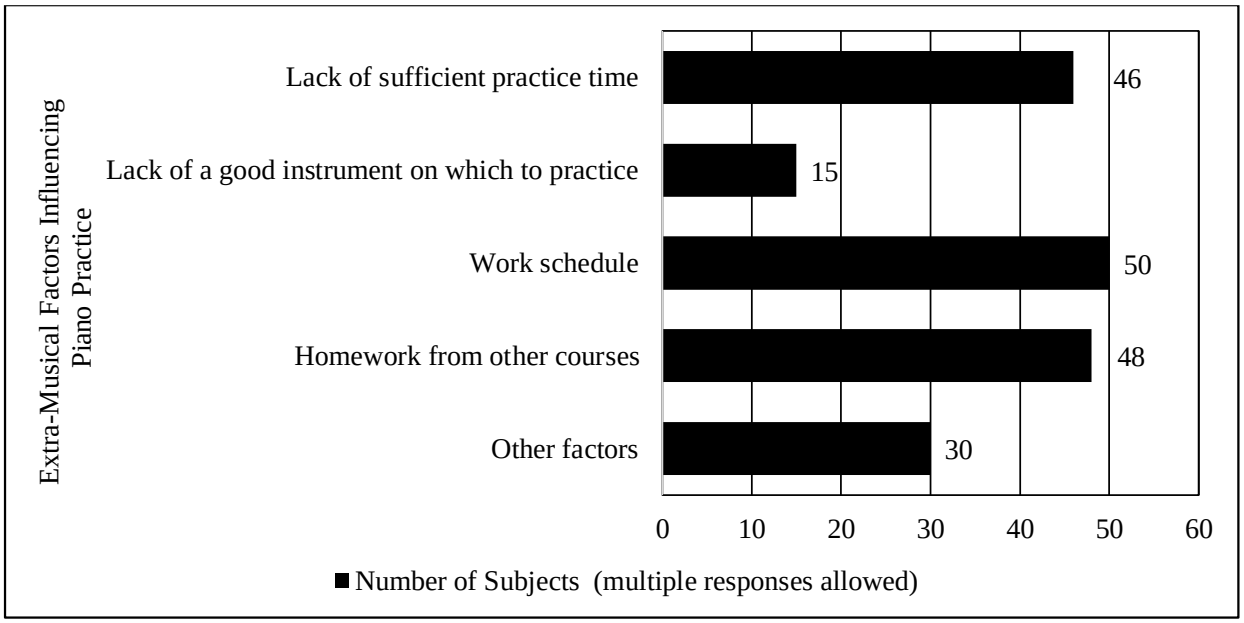

Figure 11. Extramusical factors influencing piano practice.

Of the graduates of collegiate piano programs (n = 60), 18% reported other factors, 10% reported homework from other courses, 37% reported work schedule, 5% reported the lack of a good instrument to practice on, and 30% reported the lack of sufficient practice time as extramusical factors influencing piano practice. The numerical distribution of the extra musical factors influencing piano practice of the piano program graduates is displayed in Figure 12.

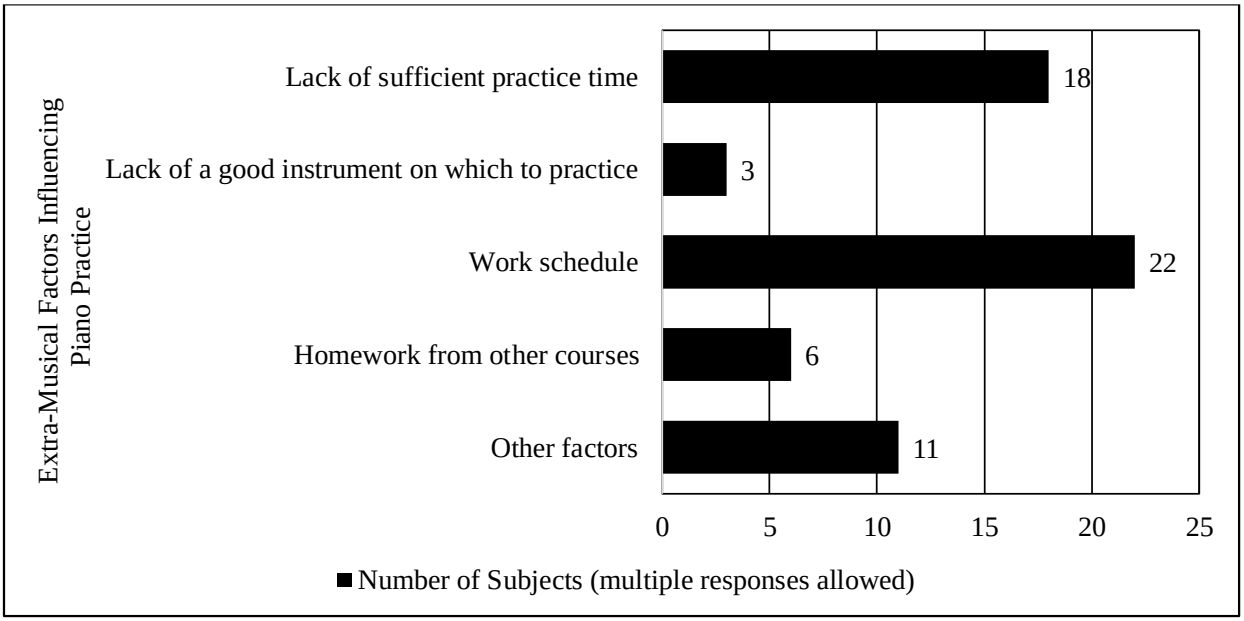

Figure 12. Extramusical factors influencing piano practice of piano program graduates.

Of the four-year private university music students (n = 53), 19% reported other factors, 34% reported homework from other courses, 19% reported work schedule, 8% reported the lack of a good instrument on which to practice, and 20% reported the lack of sufficient practice time as extramusical factors influencing piano practice. The numerical distribution of the extramusical factors influencing piano practice of the four-year private university music students is displayed in Figure 13.

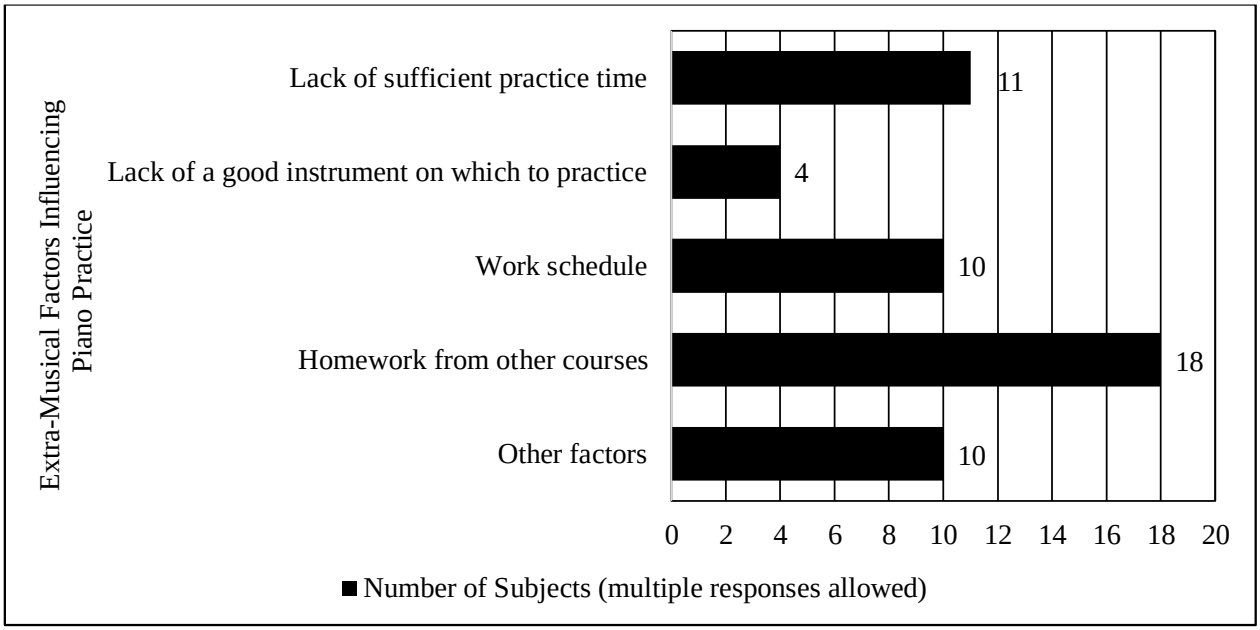

Figure 13. Extramusical factors influencing piano practice of four-year private university piano students.

Of the four-year public university music students (n = 44), 11% reported other factors, 30% reported homework from other courses, 25% reported work schedule, 9% reported the lack of a sufficient instrument on which to practice, and 25% reported the lack of sufficient practice time as extramusical factors influencing piano practice. The numerical distribution of the extramusical factors influencing piano practice of the four-year public university music students is displayed in Figure 14.

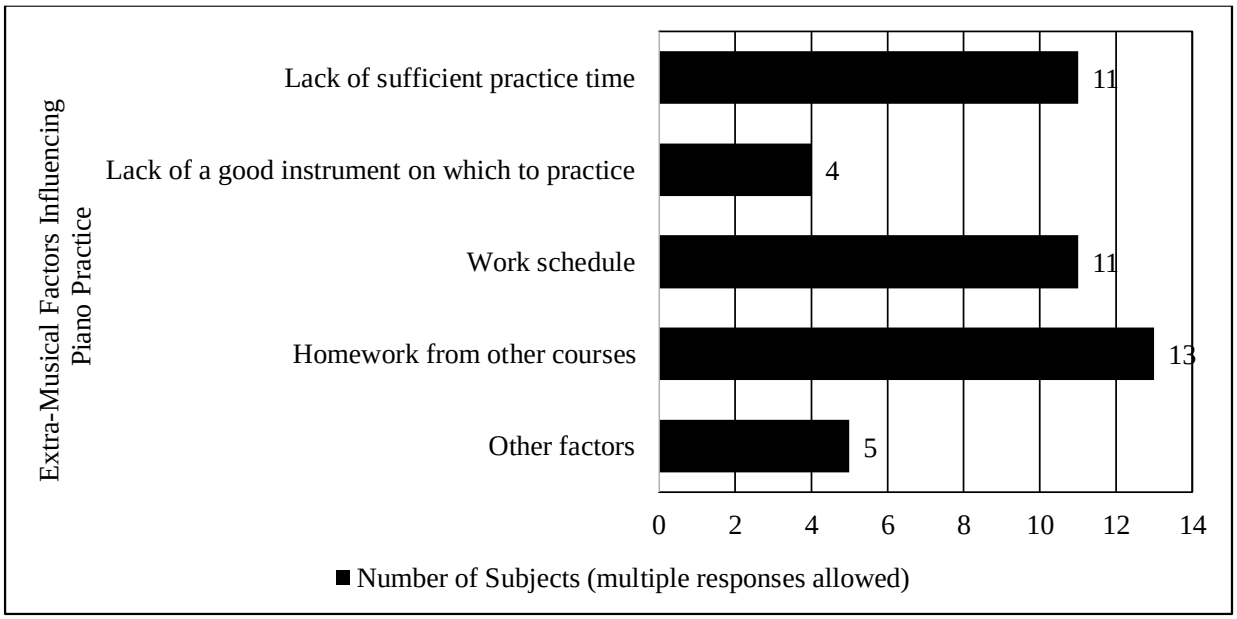

Figure 14. Extramusical factors influencing piano practice of four-year public university piano students.

The community college music student (*n* = 1) reported homework from other courses, work schedule, lack of a good instrument on which to practice, and lack of sufficient practice time as extramusical factors that influence piano practice. Of the four-year music conservatory students (*n* = 23), 13% reported other factors, 39% reported homework from other courses, 22% reported work schedule, 9% reported lack of a good instrument on which to practice, and 17% reported lack of sufficient practice time as extramusical factors influencing piano practice. The numerical distribution of the extramusical factors influencing piano practice of the four-year music conservatory piano students is displayed in Figure 15.

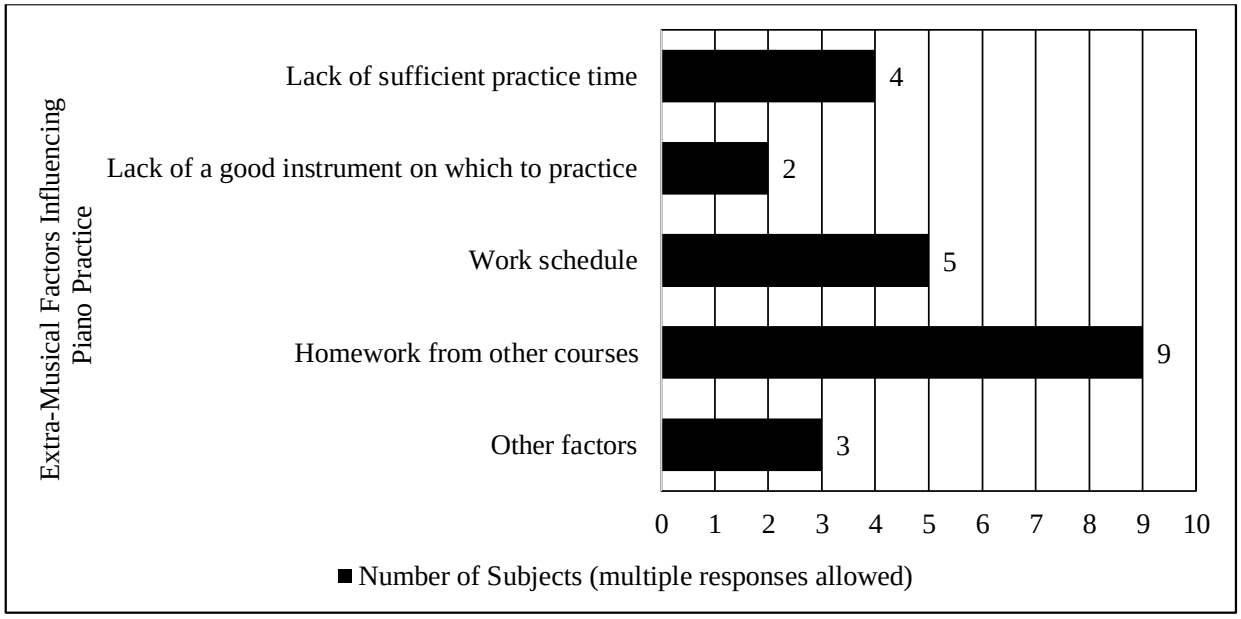

Figure 15. Extramusical factors influencing piano practice of four-year music conservatory piano students.

Subjects' Practice Strategies and Current Studies on Efficient Piano Practice

The subjects responded to a series of open-ended questions regarding specific practice strategies and techniques they employ in their individual practice. The survey questions pertaining to specific strategies included:

Q9. If your private piano teacher discussed specific practice strategies with you, what were they?

Q10. What practice strategies do you use that differ from those discussed with your private piano instructor during your lessons?

Q11. What practice strategies do you feel should be presented by the piano instructor during private piano instruction?

The subjects discussed specific practice techniques that they utilize in their individual practice. In question nine, they reported specific strategies taught by their private piano teachers. The following is a summary of the stated techniques, regardless of the subjects' relation to any collegiate piano program:

- Breaking rhythms apart
- Getting a musical passage into muscle memory
- Exercises used to improve whatever specific technique being practiced
- Breaking down large pieces into manageable sections
- Slow practice with metronome
- Hands separate memorization
- Varying rhythmic techniques and speeds
- Harmonic analysis and musical patterns
- Time management
- Repetition

In question ten, the subjects reported the practice strategies that were used during their individual practice times that differed from those discussed with their private piano teachers. Examples include the following:

- Having goal-oriented practice sessions
- Finger isolation exercises
- Closing eyes while playing to test muscle memory
- Conscious work on relaxation
- Recording myself during practice
- Starting with a warmup piece based in popular music to relax my muscles

- Taking breaks during long practice sessions
- Isolating difficult passages and creating technical exercises based on them
- Intuitively practicing aiding in focus and attention to detail

In question eleven, subjects discussed practice strategies and topics that should be presented by the private piano instructor. The suggestions included the following:

- Performance practice
- Strategies that enhance musicality rather than piano skills
- Time management
- Tips for staying motivated
- How to actively listen to yourself play
- How to establish practice routines
- Efficient memorization techniques
- Analyzing a piece in addition to learning the notes
- The importance of playing what you love
- How to prevent burnout
- Improvisation

Influence of Practice Habits on the Subjects' Performances

The subjects that completed Survey A responded to a series of open-ended questions regarding how their practice habits influenced their stage performance. The survey questions pertaining to their piano performances included the following:

Q13. Have your practice habits contributed to your performance successes?

Q14. If the answer the previous question was "yes," in what ways have your practice habits contributed to your performance successes?

Q15. If the answer to the previous question was “no,” in what ways have your practice habits contributed to your performance failures?

In question thirteen, the subjects reported whether their individual practice habits had an influence on their performance successes. Of the subjects, 91% reported that their practice habits did have an influence on their performance successes, while 9% reported that their practice habits did not have an influence on their performance successes.

In question fourteen, 91% of the subjects who answered “yes” discussed specific ways in which their individual practice habits influenced their performance successes. The following responses were recorded:

- Basic repetition and studying the same piece for several months
- Dexterity exercises, such as Hanon
- Mental performance practice
- Recording pieces for personal reflection in individual practice sessions
- Confidence that comes from practice habits
- The knowledge of personal improvement based on practice habits
- Time and discipline spent practicing
- Preparing for errors in performance
- Being able to truly “know” a piece after repetitive practice

In question fifteen, 9% of the subjects reported the following answers regarding why their practice habits contributed to performance failures:

- Reliance upon improvisational skills as opposed to individual practice
- Inadequate practice due to frustration
- Memory lapses due to nervousness when playing in front of people

Motivating Factors for Practice

The subjects discussed their motivating factors for individual piano practice. The survey question pertaining to motivating factors was as follows:

Q7. What are the factors that motivate your piano practice? Select all that apply.

a. Desire for success in piano performance
b. Desire for success in piano teaching
c. The performance of varied musical literature
d. Other factors

In question seven, the subjects reported the following information regardless of relation to any specific type of piano program. Of the subjects, 38% reported the desire for success in piano performance, 17% reported the desire for success in piano teaching, 24% reported the performance of varied musical literature, and 21% reported other factors. The numerical distribution of the factors that motivate piano practicing of all subjects is displayed in Figure 16.

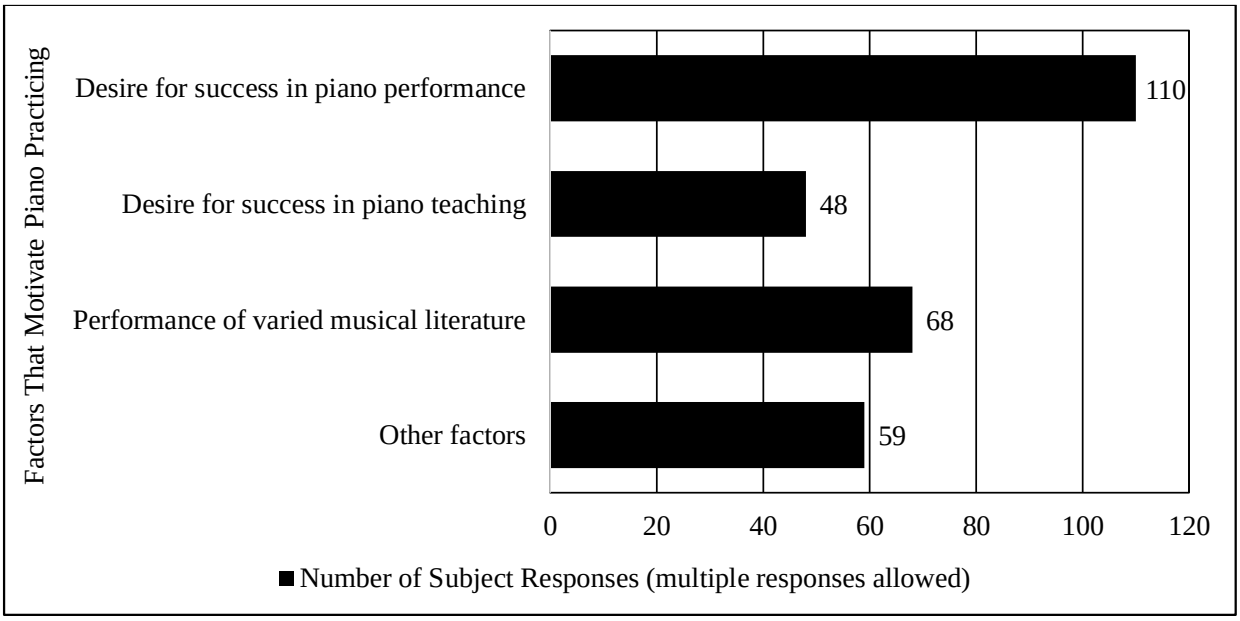

Figure 16. Factors that motivate piano practicing of all subjects.

Of the graduates of any of the piano program types, 29% reported the desire for success in piano performance, 26% reported the desire for success in piano teaching, 23% reported the performance of varied musical literature, and 22% reported other factors that motivate piano practice, as follows:

- Personal enrichment/expression
- Stress release
- Desire to meet private teacher's expectations
- Drive to learn as much as possible

The numerical distribution of the factors that motivate piano practicing of the piano program graduates is displayed in Figure 17.

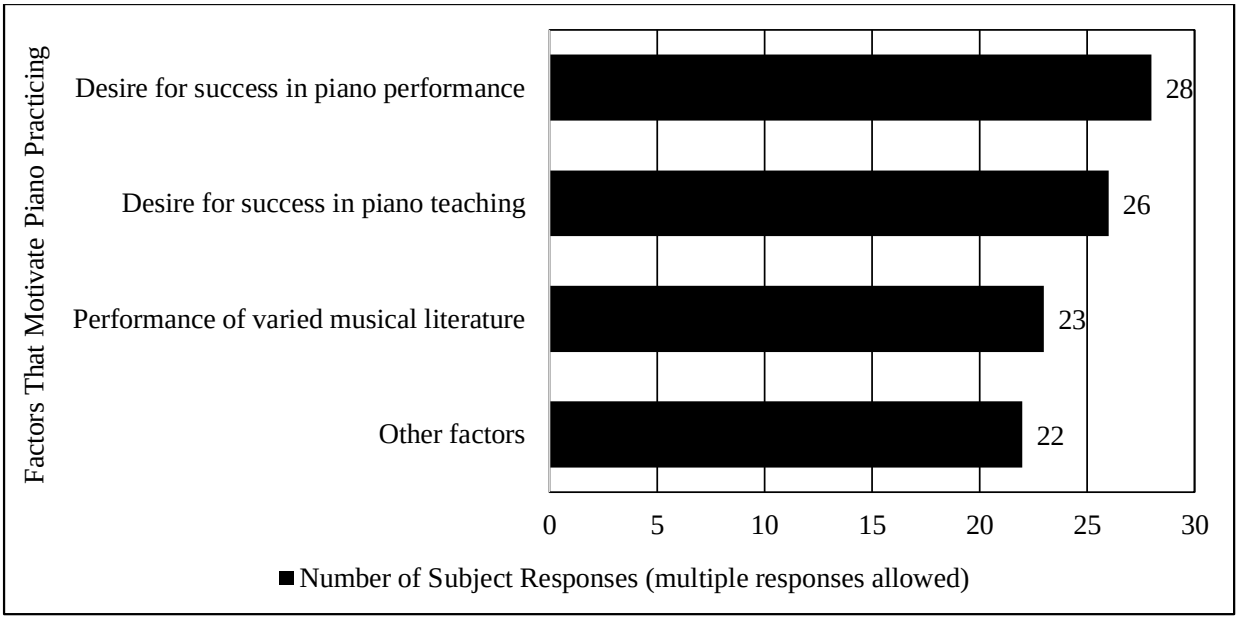

Figure 17. Factors that motivate piano practicing of the piano program graduates.

Of the four-year private university piano students, 48% reported the desire for success in piano performance, 8% reported the desire for success in piano teaching, 25% reported the performance of varied musical literature, and 19% reported other factors that motivate piano practice. The numerical distribution of the factors that motivate piano practicing of the four-year private university piano students is displayed in Figure 18.

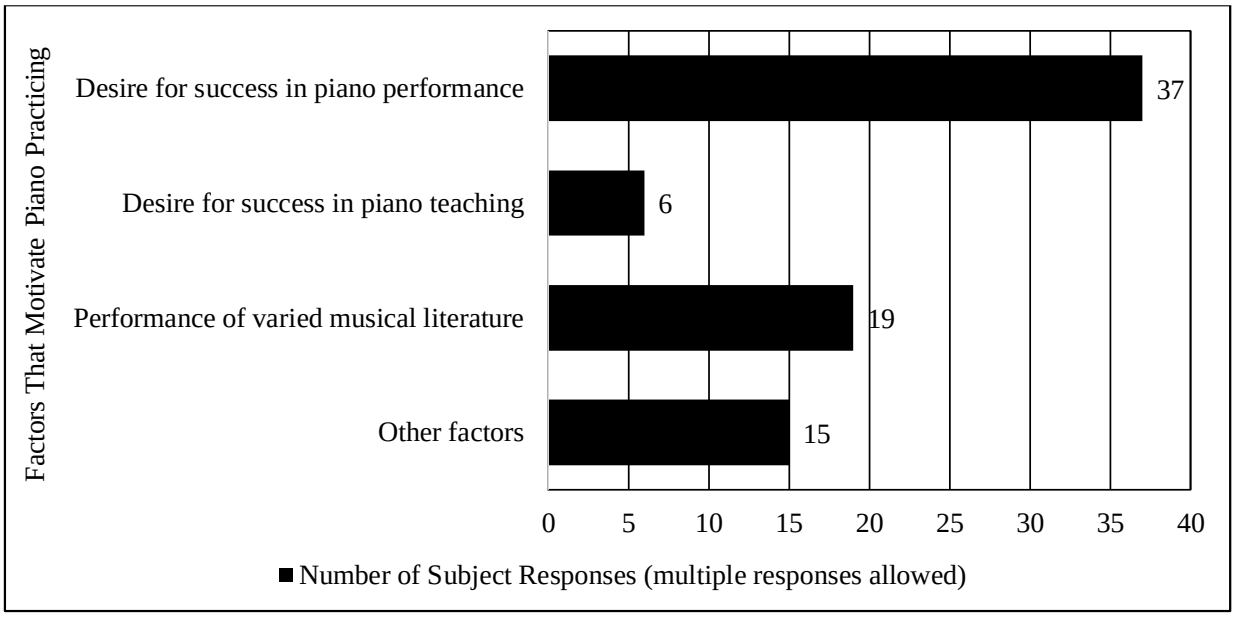

Figure 18. Factors that motivate piano practicing of the four-year private university piano students.

Of the four-year public university piano students, 38% reported a desire for success in piano performance, 15% reported the desire for success in piano teaching, 25% reported the performance of varied musical literature, and 22% reported other factors that motivate piano practice. The numerical distribution of the factors that motivate piano practicing of the four-year public university piano students is displayed in Figure 19.

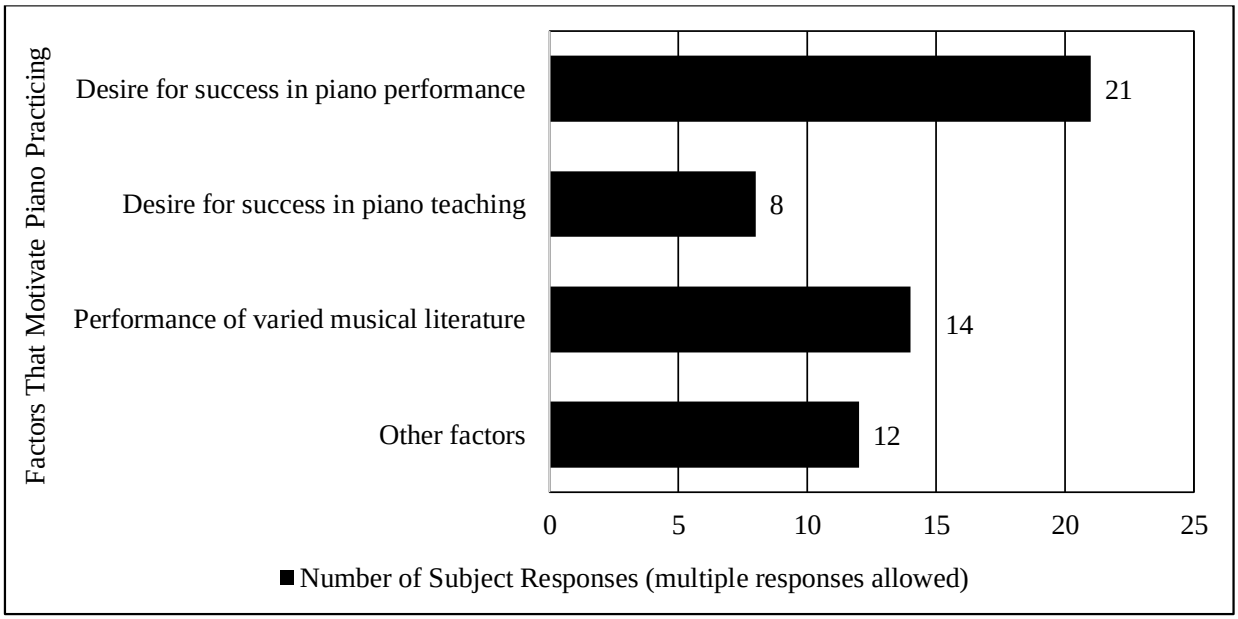

Figure 19. Factors that motivate piano practicing of the four-year public university piano students.

Of the community college piano students surveyed, 30% reported desire for success in piano performance, 20% reported desire for success in piano teaching, 30% reported the performance of varied musical literature, and 20% reported other factors. The numerical distributions of the factors that motivate piano practicing of the community college student is displayed in Figure 20.

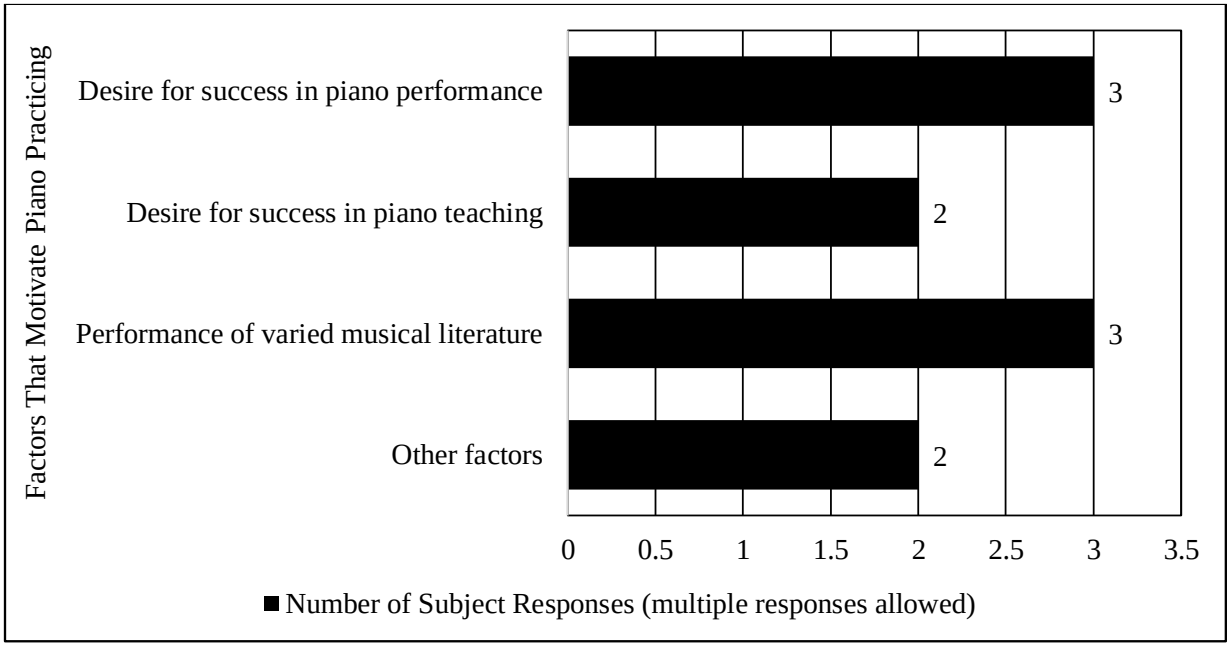

Figure 20. Factors that motivate piano practicing of the community college piano student.

Of the four-year music conservatory piano students, 48% reported the desire for success in piano performance, 14% reported the desire for success in piano teaching, 21% reported the performance of varied musical literature, and 17% reported other factors. The numerical distribution of the factors that motivate piano practicing of the music conservatory piano students is displayed in Figure 21.

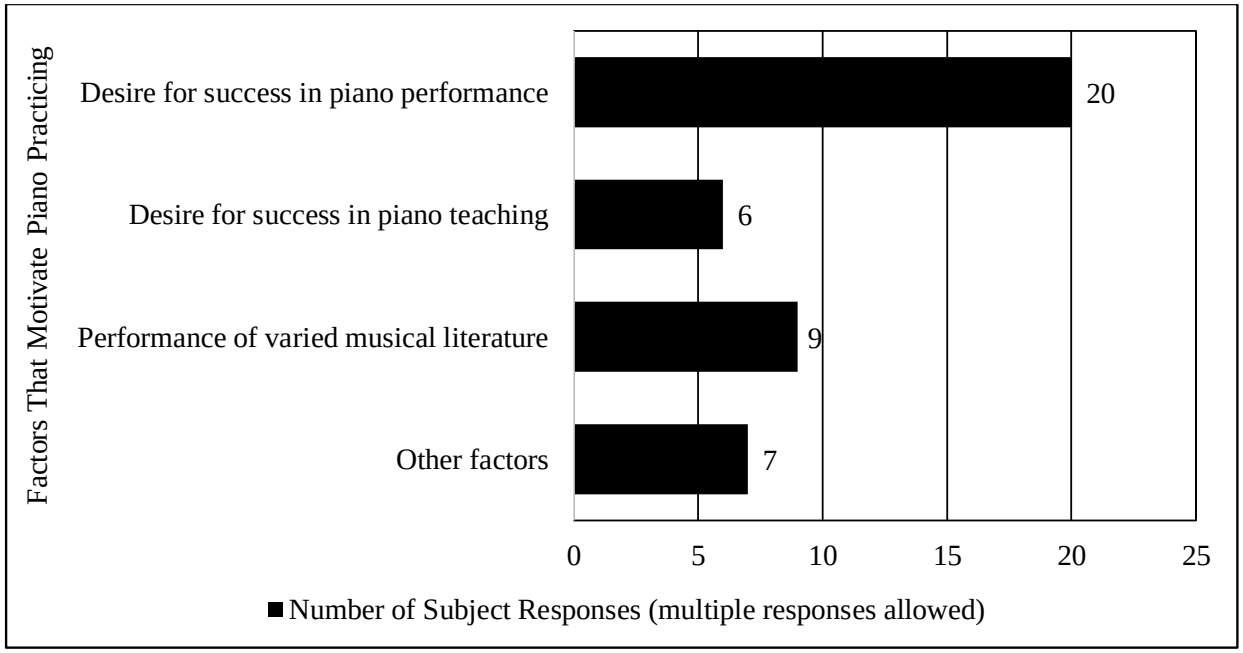

Figure 21. Factors that motivate piano practicing of the music conservatory piano students.

CHAPTER V

DISCUSSION

Future Implications for Effective Practice Strategies for College Performing Pianists

The future of piano pedagogical studies for collegiate piano students relies on continued research focused on pianists from varying aspects of their career, as the pianists that have graduated potentially select other areas of employment within music. Of the graduates of a collegiate piano program, 28% reported the desire for success in performance as their motivating factor for practice, while four-year private university piano students reported 38%, four-year public university piano students reported 40%, community college piano students reported 33%, and music conservatory students reported 40%. Within the present study, the graduates of the collegiate piano programs became more focused on having success as teachers and playing different forms of musical repertoire instead of being limited to the classical studies that dominate collegiate piano programs (Bailey, 1992; Woosley, 2012). Out of the piano students surveyed who have graduated from a collegiate program, 62% have entered the field of music education; either teaching music education in a school or teaching private lessons in a studio. When asked the field of study the undergraduate students planned to enter upon graduating, 32% selected teaching.

Additionally, the subjects shared practice strategies and topics that should be presented by the private piano instructor. These topics included learning how to improvise, playing by ear, preventing burnout, and the importance of playing what you love. It is imperative that private piano instruction incorporates goals that will last beyond the performance stage. When private

applied lessons become merely a vehicle for creating successful performances at the collegiate level, the student is potentially deprived of the opportunity to explore other important facets that can enhance their musical experiences over time.

The role of a private applied piano teacher is important in terms of influencing the subjects' practice habits and subsequent performances. The results from the survey highlight the need from applied piano teachers to provide more specific instructions provide more specific instructions regarding practice techniques that provide a wholistic approach to music literacy as opposed to purely training for successful performances (Camp, 1981 & Fleisher, 1963, p. 12).

Suggestions for Future Research

Further research on effective practice strategies for the collegiate pianist is needed to continue adapting pedagogical studies to benefit the future college piano performer. This research could include a broader subject pool with varying types of piano disciplines.

Discovering the detailed routines and motivating factors of piano practice information would be beneficial to applied piano teachers and their students. Overall, the subjects expressed a desire for more specific instructions on how to practice effectively during individual practice times. A review of pianists' musical experiences following university study will help to inform piano teachers and students on the practice techniques employed. This may help to foster lifelong learners of piano to apply multiple learned experiences toward their career goals.

Strategies for mental practice were scarcely mentioned by the subjects, which is contradictory to research that stating the importance of mental practice for the performing collegiate piano performer (Highben & Palmer, 2004, p.59; McHugh-Grifa, 2011, p. 77; Ruben-Rabson, 1941). Further research on the effects of mental practice for collegiate pianists could

include a specific study where subjects discuss the role of mental practice in their own piano practice sessions and how often it was discussed with them by their applied teachers.

Conclusion

The goal of this study was to evaluate the specific practice techniques of collegiate piano performers and graduates of any collegiate piano program including but not limited to specific practice methods employed by the student based on instruction from their teachers, what they wished their teachers would have discussed with them, how often they practice, what their motivating factors for practice were, and the effectiveness of their practice habits. The results of this research are not intended to change or diminish the importance of daily practice, but to inform researchers on the underrepresentation of practice-specific information in the field of piano pedagogy. It is hoped that this research will foster the need for more practice-specific information to inform teachers and students regarding the effectiveness of their practice habits.

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APPENDIX A

HUMAN SUBJECTS EXEMPTION COMMITTEE APPROVAL EMAIL

From: Randy Gainey no-reply@irbnet.org
Subject: IRBNet Board Action
Date: August 25, 2021 at 9:55 PM
To: Douglas Owens dtowens@odu.edu

Please note that Old Dominion University Arts & Letters Human Subjects Review Committee has taken the following
action on IRBNet:

Project Title: [1790178-1] An Analysis of Effective Practice Strategies for the Performing Undergraduate University-Level
Pianist
Principal Investigator: Douglas Owens, Doctor of Arts, Music, Master of Music, Bachelor of Music, Music Education
Submission Type: New Project
Date Submitted: July 20, 2021

Action: EXEMPT

Effective Date: August 25, 2021
Review Type: Exempt Review
Should you have any questions you may contact Randy Gainey at rgainey@odu.edu.
Thank you,
The IRBNet Support Team

APPENDIX B

INTRODUCTORY LETTER FOR PARTICIPATION IN RESEARCH

Dear Piano Student,

I hope that you can assist with my research by completing this brief online survey. I am seeking the participation of undergraduate college level piano students and graduates of the music conservatory, community college, four-year private, and four-year public university music programs, 18 years of age and older, to gain insight regarding effective practice strategies for the college level pianist.

The survey consists of 21 questions geared to discover the background and practice habits of university piano students and graduates of the varied undergraduate programs. The survey is completely anonymous and should only take 10 to 15 minutes to complete. There is no more than minimal risk involved in participating in the survey process. Your completed electronic survey responses will be sent anonymously to Dr. Douglas T. Owens, the Responsible Project Investigator and Associate Professor of Music at Old Dominion University. Dr. Owens will then give the completed surveys to me, the Investigator.

Your participation in this research study is completely voluntary and you can choose not to participate. However, I do hope you can help me conduct this important research in music education. Please know that if you do choose to participate, please do not reveal your name, the name of your employer, or other information that is personally identifiable. Any identifiable information will not be included in the final written research document.

To participate in the survey, please click or copy and paste this URL into your browser: https://odu.co1.qualtrics.com/jfe/form/SV_56YbAu9zBwAiQo6

Thank you for your consideration.

Respectfully,

Elizabeth A. Baker
Investigator | Master of Music Education Candidate
F. Ludwig Diehn School of Music
Old Dominion University
Norfolk, VA
ebake006@odu.edu

APPENDIX C

INTRODUCTORY LETTER FOR PARTICIPATION IN RESEARCH

Support letter to be sent to university music school piano faculty via email:

Dear Piano Faculty Member,

My name is Elizabeth Baker, Master of Music Education candidate at the F. Ludwig Diehn School of Music at Old Dominion University in Norfolk, VA. I am seeking your assistance with my Master of Music Education thesis research by asking you to review and consider my brief online survey for email distribution to your piano students. My thesis is titled "An Analysis of Effective Practice Strategies for the Performing Undergraduate University-Level Pianist."

The purpose of this study is to examine the specific practice techniques of undergraduate college level piano students and graduates of the music conservatory, community college, four-year private, and four-year public university music programs to gain insight regarding effective practice strategies for the college level pianist.

The survey consists of 21 questions geared to discover the background and practice habits of university piano students and graduates of the varied undergraduate programs. The survey is completely anonymous and should only take 10 to 15 minutes to complete. There is no more than minimal risk involved in participating in the survey process. The completed electronic survey responses will be sent anonymously to Dr. Douglas T. Owens, the Responsible Project Investigator and Associate Professor of Music at the F. Ludwig Diehn School of Music at Old Dominion University, dtowens@odu.edu. Dr. Owens will then give the completed surveys to me, the Investigator.

I am seeking the participation of piano students from the following sample populations:

1.) Undergraduate Music Conservatory piano students.
2.) Community College piano students.
3.) Four-year public university music program piano students.
4.) Four-year private university music program piano students.

This research project has been approved for an IRB exemption by the Old Dominion University College of Arts and Letters Human Subjects Review Committee (please see the attached IRBNet approval notice). The survey, research description, protocol, and selected references are attached.

Here is the URL to the full survey: https://odu.co1.qualtrics.com/jfe/form/SV_56YbAu9zBwAiQo6. If you approve of this survey and process, please forward the following survey invitation (see below) to your students. Please contact me if additional information is needed. Thank you for your consideration.

Respectfully,

Elizabeth A. Baker
Investigator | Master of Music Education Candidate
F. Ludwig Diehn School of Music | Old Dominion University, Norfolk, VA | ebake006@odu.edu

APPENDIX D

SURVEY QUESTIONS

Survey:
An Analysis of Effective Practice Strategies for the Performing Undergraduate University-Level Pianist

I hope that you can assist with my research by completing this brief online survey. I am seeking the participation of undergraduate college level piano students and graduates of the music conservatory, community college, four-year private, and four-year public university music programs, 18 years of age and older, to gain insight regarding effective practice strategies for the college level pianist.

The survey consists of 21 questions geared to discover the background and practice habits of university piano students and graduates of the varied undergraduate programs. The survey is completely anonymous and should only take 10 to 15 minutes to complete. There is no more than minimal risk involved in participating in the survey process. Your completed electronic survey responses will be sent anonymously to Dr. Douglas T. Owens, the Responsible Project Investigator and Associate Professor of Music at Old Dominion University. Dr. Owens will then give the completed surveys to me, the Investigator.

Your participation in this research study is completely voluntary and you can choose not to participate. However, I do hope you can help me conduct this important research in music education. Please know that if you do choose to participate, please do not reveal your name, the name of your employer, or other information that is personally identifiable. Any identifiable information will not be included in the final written research document.

Thank you for your consideration.

Respectfully,

Elizabeth A. Baker
Investigator
Master of Music Education Candidate
Old Dominion University
Norfolk, VA
ebake006@odu.edu

Survey Questions

1. What is your age range?
    a. 18-25
    b. 25-30
    c. 30-35
    d. 35-40
    e. 40-45
    f. 46 and above

2. What is your gender?
    a. Male
    b. Female
    c. LGBTQIA+
    d. Prefer not to disclose

3. What is your race or ethnicity? (American Indian, Asian, Black, or African American, Hispanic, or Latino, Native Hawaiian or Pacific Islander, White)

4. Please select the piano category that you represent:

    a. Current undergraduate music conservatory piano student
    b. Current community college piano student
    c. Current four-year public university music program piano student
    d. Current four-year private university music program student
    e. Graduate of the piano department at any of the above music program types

5. How many hours a day do you practice piano?
    a. 1-3
    b. 3-5
    c. 5-7
    d. 7 or more

6. What are the factors that motivate your piano practicing? Select all that apply.
    a. Desire for success in piano performance
    b. Desire for success in piano teaching
    c. The performance of varied musical literature
    d. Other factors _____ (open-ended answer)

7. Does or did your private piano instructor discuss specific practice strategies in your private lessons?
    a. Yes
    b. No

8. If yes, what practice strategies were discussed? (open-ended answer)

9. What practice strategies do you use that differ from those discussed with your private piano instructor during your lessons? (open-ended answer)

10. What practice strategies do you feel should be presented by the piano instructor during private piano instruction?

11. On a scale of 1 (highly inefficient) to 5 (highly efficient), At what level of efficiency would you rate your piano practicing?
    1. Highly efficient
    2. Somewhat efficient
    3. Neither efficient or inefficient
    4. Somewhat inefficient
    5. Highly inefficient

12. Have your practice habits contributed to your performance successes?
    a. Yes
    b. No

13. If yes, in what way have your practice habits contributed to your performance successes?

14. If no, in what way have your practice habits contributed to your performance failures?

15. What extra-musical factors exist that influence the way that you practice piano? Please select all that apply.
    a. Lack of sufficient practice time
    b. Lack of a good instrument on which to practice
    c. Work schedule
    d. Homework from other courses
    e. Other factors _____ (open-ended answer)

16. Have you graduated from your university program of study?
    a. Yes
    b. No

17. If you have graduated, what field have you entered? Select all that apply.
    a. Private piano teaching
    b. Music education/teaching in the schools
    c. Piano performance
    d. Other_____ (open-ended answer)

18. If you have not graduated, what field do you plan to enter upon graduating? Select all that apply.

a. Private piano teaching
b. Music education/teaching in the schools
c. Piano performance
d. Other_____ (open-ended answer)

19. How many piano teachers have you worked with during your university studies?

a. 1
b. 2
c. 3
d. 4 or more

20. On a scale of 1 (highly unimportant) to 5 (highly important), how important of a role has your piano instructor had in relation to your success as a piano performer?

1. Highly unimportant
2. Somewhat unimportant
3. Neither unimportant or important
4. Somewhat important
5. Highly important

21. On a scale of 1 (highly unimportant) to 5 (highly important), how important of a role has your piano instructor had in relation to your success as a piano instructor?

1. Highly unimportant
2. Somewhat unimportant
3. Neither unimportant or important
4. Somewhat important
5. Highly important
6. Not applicable

VITA

Elizabeth Ann Duncan

Old Dominion University

F. Ludwig Diehn School of Music

1330 West 49th Street

Norfolk, Virginia 23529

Elizabeth Duncan earned her Bachelor of Music Education in 2020 from Old Dominion University in Norfolk, Virginia. During her undergraduate studies she received several scholarships and graduated Magna Cum Laude. Her primary instrument was piano and for her senior recital she performed works by Bach, Beethoven, Schubert, and Debussy under the tutelage of Marilyn Forman. She holds a teaching license for K-12 Vocal Instruction within the state of Virginia.

Elizabeth is completing a Master of Music Education degree from Old Dominion University with a concentration in Research. She is a full scholarship recipient and is employed as a Graduate Assistant, working extensively with Old Dominion University's Jazz Choir. In addition to her academic studies, she also maintains a full time private piano studio at the Virginia Beach School of the Arts. She is a member of the Music Teachers National Association and serves as the Levels of Progress Chair for the Tidewater Music Teachers Forum.