Florida State University Libraries

Electronic Theses, Treatises and Dissertations

The Graduate School

Simultaneously Teaching the Bass Tuba and Contrabass Tuba: Methods, Teaching Philosophies, and Current Trends in College and University Studios in the United States

Jesse R. McConnell III

FLORIDA STATE UNIVERSITY COLLEGE OF MUSIC

SIMULTANEOUSLY TEACHING THE BASS TUBA AND CONTRABASS TUBA: METHODS, TEACHING PHILOSOPHIES, AND CURRENT TRENDS IN COLLEGE AND UNIVERSITY STUDIOS IN THE UNITED STATES

By

JESSE R. McCONNELL III

A Treatise submitted to the
College of Music
in partial fulfillment of the
requirements for the degree of
Doctor of Music

Jesse R. McConnell III defended this treatise on March 26, 2021.		
The members of the supervisory com	imiliee were:	
	Justin Benavidez	
	Professor Directing Treatise	
	Charles E. Brewer	
	University Representative	
	Alexander Jiménez	
	Committee Member	
	Christopher Moore	
	Committee Member	
The Graduate School has verified and	d approved the above-named committee members, and	
certifies that the treatise has been app	proved in accordance with university requirements.	

ACKNOWLEDGMENTS

Dr. Jeff Baker - Texas A&M University-Commerce & Dallas Opera

Dr. Justin Benavidez - Florida State University & Tallahassee Symphony Orchestra

Dr. Chris Dickey - Washington State University

Dr. David Earll - Ithaca College

Dr. Adam Frey - University of North Georgia

Michael Grose - University of Oregon & Eugene Symphony Orchestra

Dr. Matthew Hightower - University of Kentucky

Ed Jones - University of Texas-Arlington & Fort Worth Symphony

Fritz Kaenzig - University of Michigan (Retired) & Grant Park Orchestra (Retired)

Dr. Carl Kleinsteuber - Hague Philharmonic (Retired)

Dr. Alex Lapins - University of Tennessee & Blue Lake Summer Camp

Donald Little - University of North Texas & Dallas Opera (Retired)

John Manning - University of Iowa & Atlantic Brass Quintet

Gene Pokorny - Northwestern University & Chicago Symphony Orchestra

Dr. Ryan Robinson - Oklahoma State University & Lawton Philharmonic

Raul Rodriguez - Texas State University & Breckenridge Festival Orchestra

Dr. Daniel Rowland - University of Wisconsin-Platteville

Dr. Blake Ryall - Mississippi State University

Jim Self - University of Southern California

Dr. Cale Self - University of West Georgia

Ryan Sorenson - Stetson University

Dr. Aaron Tindall - University of Miami & Sarasota Orchestra

Charles Villarrubia - University of Texas

Dr. William Waterman - Boise State University & Blue Lake Summer Camp

Dr. Stephanie F. Ycaza - University of Northern Iowa

David Zerkel - University of Michigan

TABLE OF CONTENTS

List of Figures	V
List of Tables	vii
Abstract	viii
1. INTRODUCTION: THE DUAL-TUBA DEMAND	1
2. BASS TUBA OBSERVATIONS	5
Introducing the F Bass Tuba	6
Repertoire for Starting the Bass Tuba	
3. CONTRABASS TUBA OBSERVATIONS	22
Introducing the CC Contrabass Tuba	22
Repertoire for Starting the Contrabass Tuba	24
4. UNIVERSITY STUDIO TEACHING	34
Non-Performance Majors	34
Lessons with the Bass and Contrabass Tuba	37
Performances with the Bass and Contrabass Tuba	39
5. CURRENT TEACHING PHILOSOPHIES	41
Sound Concepts	41
Fundamental Approaches	
Daily Fundamentals and Routines	
Time Management between the Bass and Contrabass Tuba	
6. CONCLUSION	49
APPENDICES	52
A. MUSICAL EXAMPLES OF A POTENTIAL ETUDE BOOK	52
B. EXAMPLE OF A CROSS-TRAINING DAILY ROUTINE	
C. SAMPLE SURVEY	
D. IRB APPROVAL	
E. IRB APPROVAL FOR MODIFICATION	
Bibliography	63
Riographical Sketch	65

LIST OF FIGURES

1.1	Tuba categorization
2.1	Data for the survey question, "Do you have a preference on students playing F or Eb tuba, if any preference at all?"6
2.2	Data from the responses to the survey question, "When do you typically introduce the bass tuba to students and why?"
2.3	Data from the responses to the survey question, "When do you encourage or require students to own their own bass tuba?"
2.4	Gregson, Concerto for Tuba, movement one, Allegro deciso, rehearsal eight to four measures after rehearsal four
3.1	Data from the responses to the survey question, "When do you typically introduce the CC contrabass tuba to students and why?"
3.2	Data from the responses to the survey question, "When do you encourage or require students to own their own contrabass tuba?"
4.1	Data from the responses to the survey question, "Do you encourage education (or non-performance) majors to play bass tuba before they graduate?"35
4.2	Data from the responses to the survey question, "Do you encourage education (or non-performance) majors to play CC before they graduate?"
4.3	Data from the responses to the survey question, "Do you encourage or require students to bring both bass and contrabass tubas to lessons? Or do you prefer to teach separate lessons for both?"
4.4	Data from the responses to the survey question, "Do you encourage or require students to perform in recitals/studio class/departmentals on both bass and contrabass tubas throughout the course of a semester?"
5.1	Data from the responses to the survey question, "Do you have different concepts of sound for the bass and contrabass tubas? If so, what are those differences?"
5.2	Data from the responses to the survey question, "Do you have any fundamental approaches to a concept that differ between bass and contrabass tubas? If so, what are those differences?"
5.3	Data from the responses to the survey question, "Do you encourage or require students to complete their daily fundamentals/routine on both contrabass and bass tubas? Why?"47

5.4 Data from the responses to the survey question, "How would you recommend students sp	lit
their time between both contrabass and bass tubas? Should one tuba get more practice time	
than the other?"	48
6.1 Figure 6.1: Key Rotation for "Dr. Jekyll and Mr. Hyde" and "Sound"	51

LIST OF TABLES

2.1	Data from the responses to the survey question, "What solos do you assign to a student starting out on bass tuba?"
2.2	Data from the responses to the survey question, "What orchestral or band excerpts do you assign to a student starting out on bass tuba?"
2.3	Data from the responses to the survey question, "What etudes do you assign to a student starting out on bass tuba?"
2.4	Data from the responses to the survey question, "What Exercises/fundamentals do you assign to a student starting out on bass tuba?"
3.1	Data from the responses to the survey question, "What solos do you assign to a student starting out on CC contrabass tuba?"
3.2	Data from the responses to the survey question, "What orchestral or band excerpts do you assign to a student starting out on CC contrabass tuba?"
3.3	Data from the responses to the survey question, "What etudes do you assign to a student starting out on CC contrabass tuba?"
3.4	Data from the responses to the survey question, "What exercises/fundamentals do you assign to a student starting out on CC contrabass tuba?" (Published)
3.5	Data from the responses to the survey question, "What exercises/fundamentals do you assign to a student starting out on CC contrabass tuba?" (Nondescript)
5.1	Data from the responses to the survey question, "Do you have different concepts of sound for the bass and contrabass tubas? If so, what are those differences?"

ABSTRACT

Today, the modern tubist is required to be proficient at both the bass tuba and the contrabass tuba in academic and professional spheres. However, this was not always the case. Due to advances in tuba manufacturing and demands on professionals to play both instruments, the bass tuba is now implemented in university curricula throughout the United States. Young collegiate tubists now play both the bass tuba and contrabass tuba. A student who only studies one of these instruments and not the other will be impeded in attaining the skills required of modern tubists. The era of a dual-tuba demand on students has begun, and the bass tuba's use in academia is more prominent than ever.

Currently, there is a large gap in pedagogical resources addressing the dual-tuba demand on students. Most of the material that does exist is either for teaching the bass tuba alone or for teaching tuba in general. This document acknowledges the reality that serious students of the instrument now study both the bass and contrabass tuba.

Since documented and published scholarship on simultaneously teaching the bass tuba and contrabass tuba is limited, much of the information and data in this document was generated by a survey conducted in 2020. Twenty-six prominent teachers and professional tubists responded to the survey. The intent of this document is to help tubists approach doubling on two different instruments with greater efficiency and guidance by highlighting problems and solutions to the new dual-tuba demand.

CHAPTER 1

INTRODUCTION: THE DUAL-TUBA DEMAND

In 1960, Rex Conner was hired by the University of Kentucky as the first full-time tuba professor. Since then, tuba studios across the United States have seen steady growth. After Professor Conner's hiring, the second-most significant event to occur affecting the study of tuba in the United States was the introduction of the bass tuba into the collegiate setting. In the early 1970s, manufacturing and instrument design improved dramatically, and the bass tuba, which had once been an instrument that was difficult to play, became a nearly perfected instrument. This development was due, in large part, to the relationship between tubists Daniel Perantoni and Robert Tucci with the German manufacturing company *B&S* (*Blechblas- und Signal-Instrumenten-Fabrik*). They worked as design consultants in developing the modern version of the bass tuba that is in use today.

Since the 1970s, we have seen the bass tuba implemented in university curricula throughout the United States. Young collegiate tubists now play both the contrabass tuba and bass tuba, emphasizing the bass tuba as an instrument to be studied separately. Alan Baer, the principal tubist with the New York Philharmonic, writes in his book *Cross Training and Tonic/Dominant Scales for Tuba*, "As classical tubists we are sometimes required to play two horns in a professional job; and to get the job, we are required to audition on two instruments." This demand for professionals is now reflected in the university curriculum.

Dr. David Randolph, former professor at the University of Georgia, noticed the bass tuba proliferating into college programs in the late 1980s. He subsequently wrote a three-part article titled, "The Use of the F-Tuba in the College Teaching Studio," using a self-conducted survey of professionals in 1987. Dr. Randolph's findings were published in volumes 16 and 17 of the Tubists Universal Brotherhood Association (TUBA) Journal, now known as the International Tuba Euphonium Association (ITEA), in 1989. His 1989 journal publications give us the first look into the beginnings of the bass tuba's prominence in the collegiate course of study.

¹ George Palton, "An Analysis and Performance Guide to the Tuba Music of Alice Gomez" (D.M.A., University of Kentucky, 2008), 32.

² Palton, "An Analysis and Performance Guide," 35.

³ Alan Baer, *Cross Training for Tuba and Tonic/Dominant Scales* (North Brunswick, New Jersey: Baer Tracks Music, 2006), i.

It was not until 2006 that a survey similar to Randolph's was conducted, further documenting the bass tuba's place in musical academia. This 2006 survey was conducted by Dr. William Mitchell as part of his doctoral dissertation titled, "Teaching the Bass Tuba: A Survey of Current Trends in the College and University Applied Studio in the United States." Dr. Mitchell's work became immensely influential as it was later published in 2009 as an article in the ITEA Journal (Volume 36, Number 3).⁴ He revealed that the most popular bass tuba model among students and for purchase by universities was the B&S PT-10 ('PT' standing for Perantucci).⁵ However, the 1987 and 2006 surveys offer only snapshots of the equipment used by university teachers and professionals in the past. Much has changed since then.

Both Drs. Mitchell's and Randolph's works focus on the bass tuba, therefore detailing only half of the current demand on student tubists. Perhaps this is because of the shifting view of the bass tuba. Since the aforementioned studies, the role of the bass tuba in American academia has shifted from a utility instrument that is only used for specialized purposes to its current position as a primary instrument alongside its contrabass tuba counterpart. In contrast to Dr. Mitchell's and Dr. Randolph's findings, this treatise views the bass tuba and the contrabass tuba as equal instruments to be studied in the university setting. Viewing the bass tuba as the utility instrument and the contrabass tuba as the primary instrument no longer reflects the reality that students encounter in professional and academic spheres. In reality, students are required to meet what this document will refer to as the "dual-tuba demand."

The bass tuba is more prominent than it has ever been, and a student who learns only the contrabass tuba will be unable to acquire the skills that are required of the modern tubist. Dr. Jeffrey Baker astutely observed that "Performers in the last quarter of the twentieth century gradually moved towards using both a bass tuba and a contrabass tuba, recognizing that one tuba was insufficient for their needs." There is a significant gap in the extant literature and resources to help teachers and young collegiate students alike navigate the dual-tuba demand. Most of what does exist is either geared toward teaching the bass tuba alone or teaching tuba in general. This document takes into account the reality that most students now increasingly play both the bass

⁴ William Kenneth Mitchell, "Teaching the Bass Tuba: A Survey of Current Trends in the College and University Applied Studio in the United States" (D.M.A., University of North Texas, 2006)

⁶ Jeffrey Baker, "The Creation of a Performance Edition of Gustav Mahler's *Lieder Und Gesänge Aus Der Jugendzeit* and its Role in Bass Tuba Pedagogy" (D.M.A., University of North Texas, 2012), 2.

and the contrabass tubas. This treatise's ultimate goal is to help tubists approach doubling on two different instruments with improved efficiency and more comprehensive guidance by highlighting problems and solutions to the dual-tuba demand on students.

The literature on simultaneously teaching the bass tuba and contrabass tuba is limited. Much of the subject's common knowledge is currently passed down from teacher to student in weekly lessons with little documentation and published scholarship. One of the objectives of this treatise is to capture the oral tradition that is passed from teacher to student and from one generation of tubist to the next. For this reason, much of the information and data in the following chapters were collected from a survey conducted in 2020. Twenty-six prominent teachers and professionals responded to the 2020 survey, thus offering invaluable information on the subject. A list of questions used for the survey can be found in Appendix C of this document.

Some readers of this document may be teaching general low brass applied instruction at the university level as a non-tubist or as a band director with an advanced tuba student or students. The following information can serve as a resource for both teacher and student; it is advised that teachers who find themselves in this situation use the repertoire lists presented in Chapters 2 and 3. By doing so, a student will be set up for success when looking to advance to the next level, whether that be progressing from high school to college or from undergraduate to graduate school.

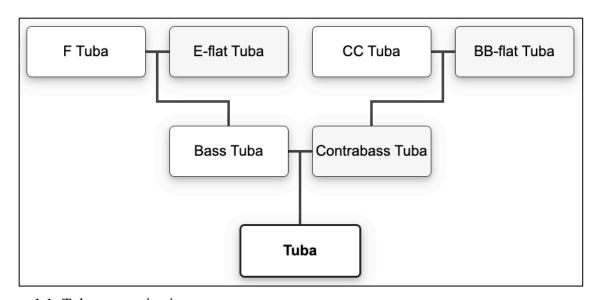


Figure 1.1: Tuba categorization

Before continuing further, it is essential to understand the terminology that will be used in the following chapters. The term "bass tuba" refers to either a 12-foot length tuba pitched in F or a 13-foot length tuba pitched in Eb. The term "contrabass tuba" refers to either a 16-foot length tuba pitched in CC or an 18-foot length tuba pitched in BBb. The survey, discussed in detail in subsequent chapters, revealed that the F bass tuba and CC contrabass tuba are the overwhelming tubas of choice for study in the United States. Since this is the case, this document will use the terms "F bass tuba" and "bass tuba" when appropriate, as well as the terms "CC contrabass tuba" and "contrabass tuba." It is useful to recall that the F tuba is a type of bass tuba and the CC tuba is a type of contrabass tuba (see Figure 1.1).

CHAPTER 2

BASS TUBA OBSERVATIONS

This chapter examines the results and conclusions from the bass tuba portion of the survey. This portion of the survey included nine questions focused on starting a student on the bass tuba. Unlike the contrabass tuba, the bass tuba is usually introduced to a student much later in their development. Multiple survey participants made a strong point to note that a student must have a firm foundation on the contrabass tuba before studying the bass tuba. Charles Villarrubia, the tuba professor at the University of Texas, sums up this point as, "I always want to be certain that their fundamentals on the big instrument [contrabass tuba] are well honed before introducing the smaller instrument [bass tuba]." The main reasons for making sure a student is first proficient on the contrabass tuba are airflow and sound production. These two fundamental skills are strengths for the contrabass tuba that translate well to the bass tuba; however, this does not hold true vice-versa. A student trying to address airflow basics and sound production fundamentals predominantly on the bass tuba will likely develop a thin uncharacteristic tuba sound on both instruments. Nonetheless, once a student has become proficient on the contrabass tuba, the bass tuba can be introduced.

As stated in the introduction, the two types of bass tubas are the 12-foot length tuba pitched in F and the 13-foot length tuba pitched in Eb. In his 2006 dissertation on teaching the bass tuba, Dr. Mitchell laid out a clear and precise history of these two tubas abroad and in the United States, which can be found in Chapter 1 of his work. His thesis revolves around both types of bass tubas. He noticed an uptick in the use of the Eb tuba in the United States in his work. However, the 2020 survey reveals that the Eb tuba has fallen considerably out of favor in American universities since the 2006 survey. This is not to say that professional tubists in the U.S. avoid performing on the Eb tuba; however, there is a noticeable trend of university professors suggesting that students use the bass tuba in F. In turn, as students become teachers and professionals themselves, the bass tuba in F has become the prominent bass tuba of choice in the U.S. Figure 2.1 represents the data for the survey question, "Do you have a preference on students playing F or Eb tuba, if any preference at all?", where 68 percent of survey respondents

⁷ Mitchell, "Teaching the Bass Tuba," 1–6.

favored the F tuba, 0 percent favored the Eb tuba, 24 percent had no preference at all, and 8 percent of survey-takers noted that trombone or euphonium students who pick up the tuba as a secondary instrument have more success playing the Eb tuba.

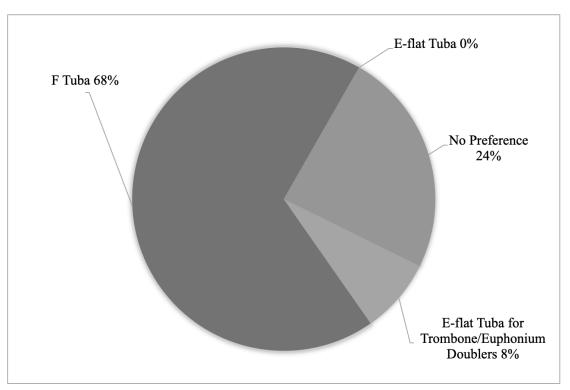


Figure 2.1: Data for the survey question, "Do you have a preference on students playing F or Eb tuba, if any preference at all?"

Introducing the F Bass Tuba

Over the past thirty years, tubists have seen a shift in when the bass tuba is normally introduced. Dr. Randolph documented in his 1987 survey that graduate school was the typical time to start learning the bass tuba.⁸ Furthermore, Dr. Randolph's research showed that 57 percent of his survey respondents, all of whom are professionals, did not receive formal instruction on the bass tuba.⁹ In the intervening 34 years since Dr. Randolph's findings, the introduction of the F bass tuba has moved forward considerably in a student's timeline of study. When survey participants were asked, "When do you typically introduce the bass tuba to

⁸ David Randolph, "The Use of the F-tuba in the College Teaching Studio," *The T.U.B.A. Journal* 16, no. 4 (Summer 1989): 25.

⁹ Randolph, "The Use of the F-tuba," 25.

students and why?", not a single survey-taker recommended starting the F bass tuba as late as graduate school. Survey participant Dr. Daniel Rowland from the University of Wisconsin-Platteville points out that some, if not most, graduate school auditions are now typically taken on the F bass tuba. A student who does not play the bass tuba by the time he/she auditions at a graduate school would most likely not be considered for acceptance, representing a considerable shift from thirty years ago.

Forty-three percent of survey-takers responded that the F bass tuba should be introduced when a student is ready. Factors such as the university's availability of a usable F bass tuba, the student's financial ability to purchase an F bass tuba, the student's desire to play the instrument, and the student's current foundation on the contrabass tuba all factor into when an individual may begin study on the instrument. Other than "when a student is ready," a student's sophomore year is the average time to introduce the new instrument. This finding may have some relation to when a student may be required to pass a junior or senior jury, barrier, or exam required at some institutions.

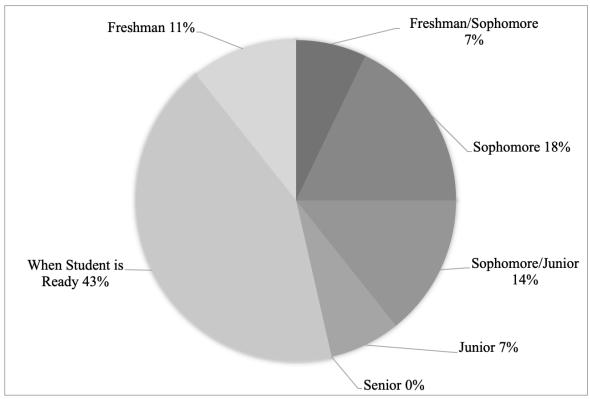


Figure 2.2: Data from the responses to the survey question, "When do you typically introduce the bass tuba to students and why?"

Additionally, Dr. Blake Ryall from Mississippi State University noted that starting the F tuba as a freshman or sophomore will give the student ample time to become familiar with the instrument and its repertoire. Again, survey respondents highly encouraged that the contrabass tuba already be in place before work begins on the bass tuba. However, the earlier the bass tuba is introduced, the longer a student will have with their teacher to navigate the dual-tuba demand.

Another area of interest in the survey was the availability and ownership of a bass tuba; after all, a bass tuba must be present in order for a student to gain experience with the instrument. Survey participants were asked, "When do you encourage or require students to own their own bass tuba?" It is important to note that this query does not address when a student should start the bass tuba, nor does it account for equipment concerns such as different brands or models of tubas. The question's aim is to gather a consensus of when university professors recommend that a serious student purchase their own bass tuba.

Multiple survey respondents pointed out that ownership of a bass tuba depends on a student's university major. Most teachers strongly encourage music performance majors to own their own bass tuba, as the instrument will be a necessary tool of the trade beyond their undergraduate degree. On the other hand, non-performance majors' purchase of a bass tuba is always optional.

Most, but not all, universities represented in the survey had at least one available bass tuba that could be loaned to a student. Some universities had as many as five bass tubas available. Teachers advocate that these university instruments be used before the purchase of a student's own. This arrangement gives a student time to become familiar with the bass tuba and allows them to explore different makes and models of tubas. The time spent with a university-rented instrument will inform their future investment in a bass tuba. The top response from the survey question on the personal ownership of a bass tuba was "Depends on the student." Factors such as current skill level, career path, and a student's finances all factor into when an instrument is purchased.

It should be recognized that teachers in this survey never required, but rather, only encouraged, the purchase of a personal bass tuba. Many stated that this is a large financial investment for the student. Thirty-two percent of respondents stated that personal finances were the number one factor for when a student should purchase a bass tuba. A few survey respondents like to see their music performance majors purchase a bass tuba in their junior or senior year of

study, subsequently allowing freshmen and sophomores the opportunity to use university-owned bass tubas. Further, if a student owns their own bass tuba by their junior or senior year, they will have a distinct advantage when attempting to secure a graduate school position or a professional position. The most significant reason is that most university-owned instruments cannot leave university property, thus limiting practice time on the bass tuba.

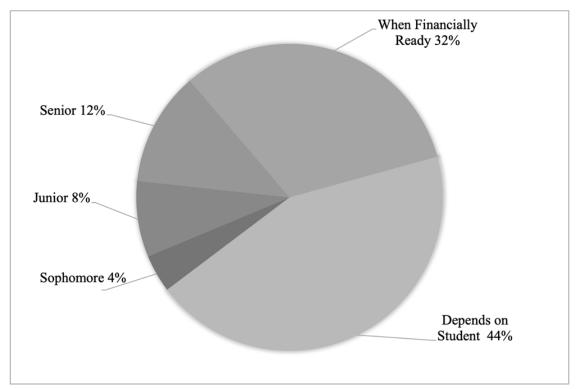


Figure 2.3: Data from the responses to the survey question, "When do you encourage or require students to own their own bass tuba?"

Repertoire for Starting the Bass Tuba

The next portion of this chapter focuses on the repertoire that is most commonly used by survey participants to introduce the F bass tuba. It is important to note that all the data gathered here is intended for a young college student beginning studies on the F bass tuba. The repertoire discussed in the remainder of the chapter represents mostly beginner to intermediate material and is not a comprehensive literature review of what repertoires are available for the bass tuba. This repertoire addresses solos, orchestral and band excerpts, etudes, exercises and fundamentals, and supplementary suggestions from the survey respondents.

When it came to assigning students their first solos on the bass tuba, a surprising trend among survey participants was the intentional division between solos originally written for the tuba and transcriptions. Seventy-two percent of respondents listed one or more transcriptions as a suggested solo, and three participants made a point of only using transcriptions. For this reason, Table 2.1 is divided between the two genres, with one section for "original works for the tuba" and the other section for "transcriptions."

The reasoning for using transcriptions as a student's first bass tuba solo is a logical one for several reasons. The typically published transcriptions for tuba from the baroque, classical, and romantic era are less demanding of range, technique, and rhythm in comparison to the modern tuba repertoire. Thus, the student who is playing this repertoire as a beginner on the bass tuba can primarily focus on sound production and musical interpretation. Furthermore, transcriptions of suites and sonatas from the aforementioned eras tend to incorporate both lyrical and technical musical elements and are usually tonally accessible to younger students. This approach makes the audiation of pitches easier, in turn ensuring pitch accuracy on the new instrument.

Modern repertoires, specifically for the bass tuba, are often written with advanced and professional tubists in mind, requiring skills that only come with years of devoted study to the instrument. The number of beginner-to-intermediate solos specifically for the bass tuba does not exist in the same way that it does for the contrabass tuba. Dr. Baker makes the following claim in his dissertation: "A clear need exists for solo material for the bass tuba to bridge the gap between novice and professional. Currently, students lack quality music to perform until they develop the technical proficiency to begin working on the more advanced solo repertoire for bass tuba." Building on Dr. Baker's claim, the lack of quality music for introducing the bass tuba can currently be filled by turning to transcriptions.

Much of the music originally written for the tuba that is represented in Table 2.1 is not specifically for the bass tuba, with the notable exception of the Vaughan Williams *Concerto for Tuba*. Several of these works were written with the contrabass tuba in mind or simply for "nondescript" tuba. However, survey respondents indicated that these original works are equally valuable for the early bass tubist.

10

_

¹⁰ Baker, "The Creation of a Performance Edition," 5.

Table 2.1: Data from the responses to the survey question, "What solos do you assign to a student starting out on bass tuba?"

Transcriptions	Recommendation Percentage
Marcello: Sonata I in F	28%
Vaughan Williams: Six Studies in English Folk Song	20%
Rachmaninoff: Vocalise	16%
Shostakovich: Adagio from Limpid Stream	12%
J. S. Bach: Flute Sonata in Eb (BWV 1031)	12%
Strauss: Nocturno for Horn Op.7	8%
Strauss: Horn Concerto No. 1 in Eb	8%
Mahler: Lieder Eines Fahrenden Gesellen	8%
Galliard: Sonata V	8%
Telemann Sonata in F Major, TWV 41:F2	4%
Brahms: Five Songs Op.104	4%
Barat: Introduction and Dance	4%
Original Works for Tuba	Recommendation Percentage
Gregson: Tuba Concerto	32%
Vaughan Williams: Concerto for Bass Tuba and Orchestra	32%
Lebedev: Concerto in One Movement	20%
Wilder: Suite No.1 "Effie Suite"	16%
Stevens: Aria Con Variazioni	16%
Persichetti: Serenade No.12	16%
Stevens: Variations in Olden Style	12%
Stevens: Sonatina	12%
Baadsvik: Ordner Seg	12%
Newton: Capriccio	8%
Spillman: Two Songs	4%
Jacob: Tuba Suite	4%
Ionel: Rumanian Dances Nos. 1-6	4%
Hindemith: Sonata for Tuba and Piano	4%
Hartley: Suite for Unaccompanied tuba	4%
Haddad: Suite for Tuba	4%
Grant: Stuff	4%
DeFaye: Suite Marine	4%
Broughton: Sonata for Tuba and Piano (1st and 2nd movements)	4%

When examining the data in Table 2.1, both Ralph Vaughan Williams's Concerto for Bass Tuba and Orchestra and Edward Gregson's Tuba Concerto are the most recommended solos for starting the bass tuba. It is nearly impossible to discuss solo tuba repertoire without mentioning the Vaughan Williams Tuba Concerto. Premiered in 1954 by the London Symphony Orchestra with tubist Philip Catelinet, the concerto holds a significant historical spot in the repertoire. The concerto is the first ever written for the solo bass tuba and has remained in heavy rotation for graduate school auditions, professional orchestral auditions, and general performances since 1954. Both Randolph's and Mitchell's 1987 and 2006 surveys have the Vaughan Williams Tuba Concerto firmly as the most often recommended solo on the bass tuba. However, the more current 2020 survey shows that Edward Gregson's Tuba Concerto has steadily risen in popularity. Gregson's concerto now rivals the popularity of Vaughan Williams's concerto for use on the bass tuba.

The first movement of the Vaughan Williams Tuba Concerto is appropriate for a young student who is new to the bass tuba. Multiple survey respondents encourage playing only the first movement instead of attempting the whole concerto. The first movement is written in a comfortable register for the instrument, and the key of F minor complements the general range and intonation tendencies of the F bass tuba. A large portion of the movement utilizes the open partials of the F bass tuba, i.e., the notes played on the open bugle (no valves engaged). With idiomatic writing for the instrument, the first movement of the Vaughan Williams Tuba Concerto can be a valuable steppingstone in a student's bass tuba development.

However, the second and third movements of the Vaughan Williams Tuba Concerto will require more advanced skills. The second movement sits within the high range of the instrument and is an endurance challenge. Further, the key of D major in the second movement is not a comfortable key for the F bass tuba due to intonation tendencies and challenges. The third movement also sits in the high range of the instrument and is rhythmically challenging. Due to the endurance issues and high register writing present in these two movements, a student who is not adequately prepared will struggle without an efficient upper register production.

Edward Gregson's Tuba Concerto was originally written for solo tuba and brass band in 1976, yet the work did not see its orchestral debut until 1983 by the Scottish National Orchestra

¹¹ Clifford Bevan, *The Tuba Family* (Winchester, Hampshire: Piccolo Press, 2000), 437.

with tubist John Fletcher, to whom it was dedicated.¹² Gregson's concerto is in a comfortable register throughout most of the work and is well-suited for a student's first studies on the bass tuba. Further, this work has a good balance of rhythmic, technical, and melodic sections, thus developing a student's musical capacity in both areas on the newly introduced bass tuba.

Due to the Gregson Tuba Concerto's growing popularity among young players, a student may have previously worked on this concerto on the contrabass tuba or have heard the work performed. With many memorable melodies, the Gregson is an excellent work to improve audiation. If a student has attempted to play this solo before, it could be an excellent opportunity to identify current or previous bad habits that tend to reveal themselves when revisiting previously played material.

Additionally, several professional recordings of Gregson's concerto can be found for a student to reference. One commonly preferred recording is that by James Gourley, featured on his album *British Tuba Concertos*, which was recorded with the Royal Ballet Sinfonia. In his survey response, Dr. Matthew Hightower from the University of Kentucky wrote that Michael Lind's *Play Tuba* album offers a great representation of this concerto played on the F bass tuba.



Figure 2.4: Gregson, *Concerto for Tuba*, movement one, Allegro deciso, rehearsal eight to four measures after rehearsal four.

Gregson's concerto does have its technical challenges; however, this concerto offers a student an excellent chance to work on agility and clarity while aiming for an evenness of sound throughout multiple registers. Professor Donald Little from the University of North Texas suggests that some sections can be played down one octave to aid students who may not be ready

¹² Edward Gregson, "Tuba Concerto (Orchestral Version)–Edward Gregson," accessed January 5, 2021, https://edwardgregson.com/works/tuba-concerto-orchestral-version/.

to play above the staff comfortably. For example, rehearsal eight to four measures after rehearsal eight can be transposed down one octave. This adaptation is represented in Figure 2.4. However, it is important to note that this is only an option if needed; a student capable of playing in the high register with good fundamentals should not transpose octaves.

Vaughan Williams's *Six Studies in English Folk-Song* is another prominently suggested work for learning the bass tuba. This solo is not overtly challenging due to the work's limited technical demands and narrow range. The range is ideal for learning the bass tuba. It is important to avoid testing the upper register when initially learning the bass tuba. This could lead to identifying the bass tuba as an exclusively high-range instrument, which it is not. Dr. Ryan Robinson from Oklahoma State University warns of this circumstance in his survey response when approaching the bass tuba. Further, audiation of the melody should be an accessible skill for students since the work is based around simple folk-like songs.

As seen in Table 2.1, Marcello's Sonata No. I in F was recommended more often than Vaughan Williams's *Six Studies in English Folk-Song*. Marcello's Sonata can teach some of the same skills. However, the case can be made that the slightly larger range of *Six Studies* is better suited to learning the bass tuba at an early collegiate level because *Six Studies* is transcribed to a register that better suits the standard register of the bass tuba. Marcello's Sonata No. I in F is also high on the list of recommended works for learning the CC contrabass tuba as it better suits the strengths of the contrabass tuba.

Actively using the fourth valve on the F bass tuba throughout *Six Studies* can be a challenge. Typically, there is a noticeable sound change when engaging the fourth valve on the F bass tuba. This piece allows a student to develop the skill of using the fourth valve effectively early on in their bass tuba development. Respondents noted that if a rotary F bass tuba is being used, the notes at the bottom of the staff requiring the fourth valve tend to be "stuffy" or restrictive in response; the same can be equally true on F bass tubas with piston valves. A remedy mentioned by survey respondents is to use Vaughan Williams's *Six Studies* along with low range etudes. Popular etude suggestions were Bordogni's *Melodious Etudes* and Snedecor's *Low Etudes for Tuba*. This approach will help the ease of response of notes requiring the fourth valve.

Sergei Rachmaninoff's *Vocalise*, originally a wordless song for voice and piano, can be an effective work for learning the bass tuba as well. This solo was an often-suggested work for

learning the bass tuba (Table 2.1). Like Vaughan Williams's *Six Studies*, Rachmaninoff's *Vocalise* is not overly demanding in terms of range, technique, and rhythm. However, it is much more musically and harmonically complex than the Vaughan Williams, thereby making this an excellent solo through which to teach or reinforce music theory principles and how they can be used to craft an interpretation. With subtle harmonic changes and frequent suspensions, the romantic work features many moments of tension and release.

For a successful performance, the *Vocalise* requires a wide range of dynamics. The wide dynamic range needed to play this solo can help students learn how to create a consistent tone color at different volume levels on the bass tuba. When increasing dynamic volume, the bass tuba sound tends to get brighter more quickly than the contrabass tuba, and this solo provides an opportunity to work on that issue.

Because tubas are non-transposing instruments that are made in different keys, the bass tuba and contrabass tuba have different valve combination systems. If a young student is struggling with learning the valve combinations on the bass tuba, *Vocalise* is primarily composed at a level of rhythmic activity that allows them time to think and be accurate when engaging the valves. Since the solo line is not repetitive, more effort may be needed for accuracy with valve combinations and note recognition. A student must also be careful not to engage the valves slowly because doing so will lead to poor tone quality and missed notes. A common problem among young tubists when playing slow music is slow-moving valves. A student must learn how to coordinate slow tempos while maintaining quick engagement of the valves.

It is important to note that there are two arrangements of Rachmaninoff's *Vocalise* for tuba: one in E minor arranged by Daniel Perantoni, and one in C minor arranged by Virginia Allen. It is the author's opinion that the Allen version in C minor is more naturally suited to the F bass tuba because of the lower key of C minor. Furthermore, the Allen version has multiple well-placed and helpful breath marks that were added by the arranger.

When considering orchestral and band excerpts for introducing the bass tuba, Hector Berlioz's *Symphonie Fantastique*, Gustav Mahler's Symphony No.1, and Berlioz's *Hungarian March* were the most often recommended musical excerpts used to teach the bass tuba. Hector Berlioz is the most represented composer in this category with nearly 43 percent of all the works suggested.

Berlioz's *Symphonie Fantastique* predates the modern tuba and has a rich historical significance for tubists. The work is originally written for one ophicleide and one serpent, both predecessors to the modern tuba. Then, it was revised for two ophicleides, one in C and the other in Bb.¹³ In 1835, five years after *Symphonie Fantastique*'s composition, the bass tuba's patent was issued in Berlin. Once the bass tuba was established, Berlioz himself favored the tuba as an alternative to the ophicleides and the serpent. However, as Berlioz was a French composer, "tuba" meant the "French tuba" in France during this period. The French tuba at that time was an 8-foot instrument in C that resembled the modern euphonium. Having gone from serpent to ophicleide to French tuba, *Symphonie Fantastique* is now typically performed with two modern bass tubas.

The two tuba parts from *Symphonie Fantastique* can be used to introduce the bass tuba, as noted by 64 percent of survey respondents. The excerpts from movements four and five cover a wide range but are not unreasonable. If a student is ready to tackle the larger range of the bass tuba, consistency of sound in different registers should be stressed. For example, the passage at Rehearsal 56 in the fourth movement covers an extensive range in addition to increasing in volume. A student must balance both dynamic and range demands on the bass tuba. In the fifth movement, the excerpt from Rehearsal 84 to the end of the piece may require multiple tonguing depending on the selected tempo. A student should be prepared to play this passage using a single or multiple tongue technique.

The notable tuba solo in the third movement of Gustav Mahler's Symphony No.1 is generally playable by most beginning bass tuba students. Special attention will be needed to achieve the solo's appropriate soft dynamic level. However, students will quickly notice that softer dynamics are considerably easier on the bass tuba than the contrabass tuba. Due to this excerpt's simplicity, a sing-buzz (on the mouthpiece)-play approach can set a student up for success on this excerpt while simultaneously building strong fundamentals. Further, this short excerpt is easy to memorize. A few survey participants suggest playing this excerpt in all twelve keys from memory.

¹³ Carl Kleinsteuber, "An Argument in Favor of the Saxhorn Basse (French Tuba) in the Modern Symphony Orchestra" (D.M.A., University of North Texas, 2017).

¹⁴ Kleinsteuber, "An Argument."

Berlioz's *Hungarian March* is among the most requested excerpts for professional orchestral positions, and it is the first part written explicitly for tuba by Berlioz. ¹⁵ The excerpt occurs from Rehearsal 4 to two measures after Rehearsal 5. The work is ideal for the F bass tuba, and much of the piece is in a comfortable register. A student should aim to play this excerpt with a great deal of rhythmic accuracy. Playing the rhythm on a monotonous pitch can improve a student's accuracy on this excerpt. However, this may not be the excerpt with which to introduce a new instrument if a student struggles with rhythm. The frequent dotted and tied rhythms combined with the cut-time signature can be challenging, doubly so if he/she is not familiar with the bass tuba.

Table 2.2 represents the data from the responses to the survey question on excerpts. No survey respondents recommended that band excerpts be used for starting the bass tuba. The unanimous consensus among those surveyed can be summed up by a quote from Florida State University's tuba professor, Dr. Justin Benavidez: "In my personal experience, the bass tuba does not have a defined place in band literature, so I do not assign any band excerpts for bass tuba." Further, band excerpts tend to be exclusively for the contrabass tuba. The bass tuba is rarely used in the band setting, barring a special request from a conductor.

Table 2.2: Data from the responses to the survey question, "What orchestral or band excerpts do

you assign to a student starting out on bass tuba?"

Composer and Title	Recommendation Percentage
Berlioz: Hungarian March	80%
Mahler: Symphony No. 1	72%
Berlioz: Symphonie Fantastique (4 th and 5 th movements)	64%
Wagner: Die Meistersinger von Nürnberg-Overture	28%
Berlioz: King Lear	8%
Mussorgsky: Pictures at an Exhibition–Bydlo	8%
Depends on Student	8%
Wagner: Lohengrin	4%
Franck: Symphony in D Minor	4%
Stravinsky: Petrouchka (Bear Solo)	4%
Berlioz: Romeo and Juliet	4%
Berlioz: Benvenuto Cellini	4%
Berlioz: Le Corsaire	4%
Revueltas: Sensemayá	4%

¹⁵ Bevan, "The Tuba Family," 482.

Table 2.2 - continued

Composer and Title	Recommendation Percentage
Band Excerpts	0%

When inquiring about etudes used to introduce the bass tuba, the Grigoriev, Tyrell, Kopprasch, Blazhevich, and Bordogni etudes were the most recommended (Table 2.3). All five of these books have been standard material for tubists for several decades. Marco Bordogni's *Melodious Etudes* was selected by 88 percent of respondents, and the data indicates that Bordogni's etudes are the most recommended material for working on both the bass and contrabass tuba. In addition to being highly suggested for bass tuba use, Bordogni's *Melodious Etudes* was also recommended for use on the contrabass tuba by 92 percent of survey participants. Due to the overlap in material, the previously mentioned etude books will be covered in Chapter 3 when discussing etude books for the contrabass tuba.

It is important to point out that Bordogni's *Melodious Etudes* are typically called "Bordogni etudes" or "Rochut etudes," depending on the individual. Multiple points of reference can be confusing, but the Bordogni etudes and the Rochut etudes refer to the same book. In 1928, Joannes Rochut transcribed Marco Bordogni's multiple vocalises into etudes for the trombone. At the time, Rochut was the principal trombonist of the Boston Symphony Orchestra. ¹⁶ Since Rochut's transcriptions, the etudes have remained in heavy use by low brass instrumentalists.

Several survey respondents noted that Bordogni's etudes are valuable because of their versatility, allowing students to work on various skills simultaneously. Texas Tech University's tuba professor, Dr. Kevin Wass, notes that these etudes can be used in various ways. The etudes can be used for aural skill practice by using solfege syllables (or numbers), the tubist can buzz these etudes on their mouthpiece, and phrases can be rotated between three different octaves. ¹⁷ John Manning from the University of Iowa wrote, "I like them to be fluent in Bordogni ... at the octave as well as one octave up on bass tuba." Stephanie Ycaza from the University of Northern Iowa stated, "When developing the high range, we will play a Rochut, switching between playing it in the regular octave and one octave up. This helps with ear/intonation and moving

¹⁶ Joannes Rochut, Melodious Etudes for Trombone (New York: Carl Fischer Music, 1928), 88.

¹⁷ Kevin Wass, private lesson notes by author, Lubbock, 2009.

between the registers." Below is the complete data from the responses to the survey question on etudes used to begin studying the bass tuba.

Table 2.3: Data from the responses to the survey question, "What etudes do you assign to a student starting out on bass tuba?"

Composer and Etude Book Title	Recommendation Percentage
Rochut: Melodious Etudes Selected from the Vocalises of Marco Bordogni	88%
Blazhevich: 70 Tuba Studies for BBb Tuba	40%
Kopprasch: 60 Selected Studies for BBb Tuba	28%
Tyrell: 40 Advanced Studies for Bb Bass	24%
Grigoriev: 78 Studies for Tuba	20%
Arban: 14 Characteristic Studies from Arban's Complete Celebrated Method for the Cornet	16%
Concone: Lyrical Studies	16%
Senon: Kaleidoscope Etudes	16%
Snedecor: Low Etudes for Tuba	16%
Vasiliev: 24 Melodious Etudes for Tuba	12%
Pederson: Advanced Etudes for Bass Trombone	8%
Bona: Rhythmical Articulation	4%
Collins: In the Singing Style	4%
Fink: Studies in Legato	4%
Gallay: 40 Preludes, Op. 27 for F Tuba	4%
Getchell: First Book of Practical Studies	4%
Haddad: 20 Short Etudes for Tuba	4%
Rodriguez: Low Blows for Tuba	4%
Sear: Etudes for Tuba	4%

The survey question on what exercises/fundamentals to assign a student starting on bass tuba resulted in the emergence of two different categories. Some teachers suggested published material, while others assign unpublished material such as scales and arpeggios to students.

Often, respondents mentioned a combination of both categories in their surveys. For this reason, Table 2.4 is divided into "Published Books" and "Nondescript Exercises and Fundamentals."

The Brass Gym by Sam Pilafian and Patrick Sheridan, as well as major and minor scales, were the two most popular recommended materials for learning the fundamentals of the bass tuba, both receiving a 40 percent recommendation rate among all the respondents. The Brass Gym is a relatively new resource for tubists, with publication beginning in 2008 by Focus on

Music. ¹⁸ Since being published, *The Brass Gym* continues to grow in popularity among brass students and teachers, with editions now available for euphonium, horn, and trumpet. The first half of this book is easily accessible by all levels of tubists as it covers the basic fundamentals of playing the instrument. However, the second half features more advanced exercises that will be accessible only to advanced students.

Twenty percent of survey respondents noted that it is essential to focus on low range fundamentals when starting on the bass tuba. Dr. Matthew Hightower from the University of Kentucky wrote, "Typically put a premium on the extreme low register. That tends to be overlooked and difficult ... Once a student learns to navigate the low register, I feel this really lifts a lot of restrictions the student might otherwise face." For low range work on the bass tuba, students can use major and minor scales to cover that register of the instrument. In addition, a large portion of survey respondents advocated playing Bordogni's Melodious Etudes down one octave or Snedecor's Low Etudes for Tuba to aid a student's low register development.

Table 2.4: Data from the responses to the survey question, "What Exercises/fundamentals do you

assign to a student starting out on bass tuba?"

Published Books Used for Exercises and Fundamentals	Recommendation Percentage
Pilafian/Sheridan: The Brass Gym	40%
Alessi: Warm-Up and Maintenance Routine	16%
Arban: Complete Method for Cornet	12%
Davis: The 20 Minute Warm-Up	12%
Lin: Lip Flexibilities: For All Brass Instruments	12%
Olka: Fundamental Routines (via Youtube)	12%
Schlossberg: Daily Drills and Technical Studies	4%
Vining: Daily Routines for Tuba	4%
Nondescript Exercises and Fundamentals	Recommendation Percentage
Major & Minor Scales	40%
Lip Flexibilities and Slurs	24%
Arpeggios	16%
Articulation Exercises	8%
Long Tones	8%

20

¹⁸ Sam Pilafian and Patrick Sheridan, *The Brass Gym* (Mesa, Arizona: Focus on Music, 2008).

While not selected by participants in this portion of the survey, Alan Baer's 2006 scale book, *Cross Training and Tonic/Dominant Scales for Tuba*, is the only exercises/fundamentals book specifically designed to have the player work on both the bass tuba and contrabass tuba in the same routine. The book gives a brief one-page summary of the importance of being able to play both instruments adequately.¹⁹ With little commentary, the book is predominantly comprised of scalar exercises meant to be played on both tubas. A clear need exists for additional material like Mr. Baer's to cross-train between bass and contrabass tubas with more efficiency. Eight percent of respondents suggested Mr. Baer's book in the CC contrabass tuba portion of the survey.

When asked about supplementary assignments for a student starting on bass tuba, many survey respondents expressed the importance of listening to live and recorded music. The tuba professor at the University of North Texas, Donald Little, wrote, "Listening to both live and recorded music of many styles of music on a daily basis is also critical to the development of all tuba players." The most common response to the question, "Do you have any other assignments for a student starting out on bass tuba?" was assigning tunes to be played by ear in all twelve keys. Carl Kleinsteuber, a retired principal tubist of the Hague Philharmonic, notes that a student should be able to play simple tunes such as "Happy Birthday" in all twelve keys. Below is a list of all the suggestions made by the respondents:

- Playing Tunes by Ear in All Twelve Keys
- Listening Assignments (Live and Recordings)
- Daily Sight-Reading Assignments
- Improvisation Assignments
- Transposition Assignments
- Play in Chamber Groups
- Reading parts in Treble Clef

-

¹⁹ Baer, Cross Training, i.

CHAPTER 3

CONTRABASS TUBA OBSERVATIONS

Introducing the CC Contrabass Tuba

Focusing on the contrabass tuba, this chapter will cover the early stages of introducing the instrument and the common materials used. Before continuing further, it is important to explain why the contrabass tuba pitched in CC is the focus and not the contrabass tuba pitched in BBb. Referring to Figure 1.1 on page 3 may be helpful to understand the tuba categorizations. The CC contrabass tuba has been the standard tuba in the United States for all levels of tuba players beyond high school for some time. Because of this trend, a question about the preference for CC versus BBb contrabass tuba did not appear in the survey, although the question did appear when inquiring about the bass tuba (F versus Eb bass tuba). Respondents confirmed the survey's assumption as 0 percent advocated for the use of the BBb tuba in the United States beyond high school education.

Survey takers noted that the CC contrabass tuba has an advantage over the BBb contrabass tuba for several reasons. The CC tuba has more functional intonation tendencies, especially in sharp keys, which are prevalent in orchestral music. The CC tuba typically has a cleaner and more focused sound compared to the BBb tuba. Lastly, prevalent manufacturers focus more of their research and design efforts on CC tubas, understanding that most professionals in the US marketplace are looking to purchase CC contrabass tubas.

When inquiring about the typical time to introduce a student to the CC contrabass tuba, 31 percent of survey takers supported the idea of beginning study of the instrument in high school. With similar views, another 31 percent suggested that serious students start as soon as possible upon entering the university if they have not already started the instrument in high school. Twelve percent encouraged their students to start playing the CC tuba in their freshmen (8%) or sophomore (4%) years of college. Fifteen percent of respondents take a more hands-off approach, writing that it is voluntary for their students to switch from BBb to CC contrabass tuba. However, most students do tend to favor the CC tuba, acknowledging the advantages that the instrument offers over its BBb tuba equivalent. The remaining 11 percent suggested

variations of "when a student is ready" and "depends on career goals." Below in Figure 3.1 is the data representing the survey results on this topic.

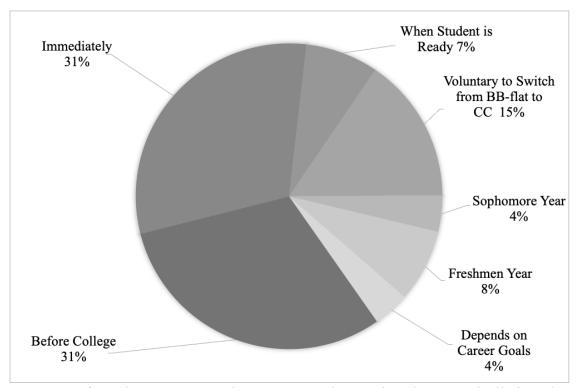


Figure 3.1: Data from the responses to the survey question, "When do you typically introduce the CC contrabass tuba to students and why?"

Survey takers were next asked about student ownership of a personal contrabass tuba. The intent of this question was to gather a consensus of when professional educators and performers recommend a student purchase their own contrabass tuba. Fortunately, most US universities have contrabass tubas available for students to borrow. Survey takers were often quick to note this is an option for their students. Survey takers recommended that a student needs to start exploring the option of purchasing their own contrabass tuba as university rentals can be limited, and the instrument will be a necessary tool of the trade if they wish to continue pursuing a career in music as a tubist.

When asked when a student should purchase their own contrabass tuba, the top two responses were in their sophomore or junior year—both with a 21 percent recommendation rate. A combined 29 percent suggested an earlier timeline, responding that this purchase should be made "Immediately" (17%) or "Before College" (12%).

When comparing data from a similar question for the bass tuba, multiple survey takers pointed out that the ownership of a bass tuba depends on a student's university major. However, less distinction between majors was noted for the contrabass tuba. Regardless of a music student's specific university major, teachers adamantly recommend ownership of a contrabass tuba.

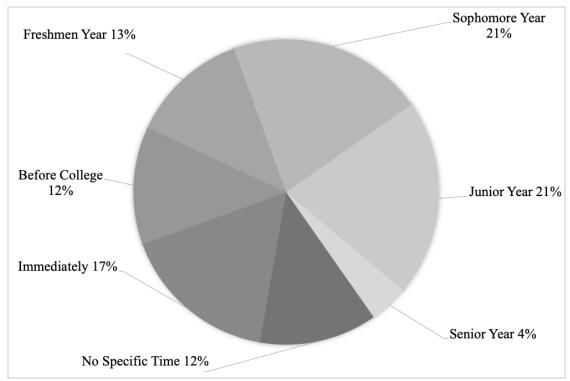


Figure 3.2: Data from the responses to the survey question, "When do you encourage or require students to own their own contrabass tuba?"

Repertoire for Starting the Contrabass Tuba

The next portion of this chapter will focus on the repertoire that is commonly used by survey participants for introducing the CC contrabass tuba. All data gathered is intended for a student who is a starting on the CC tuba. The following material is not a comprehensive literature review of what repertoire is available for the contrabass tuba; instead, the focus is on early literature used for introducing the instrument. This repertoire covers solos, orchestral and band excerpts, etudes, exercises and fundamentals, and supplementary suggestions from survey takers.

A clear consensus emerged from the survey question on solos for starting the CC

contrabass tuba. As can be seen in Table 3.1, solos by Haddad, Marcello, Vaughan Williams, and Capuzzi are commonly assigned to students that are beginning studies on the CC contrabass tuba. These four works are less demanding of range, technique, and rhythm in comparison to the general contrabass solo tuba repertoire. Thus, the student who is playing this repertoire as a beginner on contrabass tuba can primarily focus on sound production and musical interpretation. Dr. Jeffrey Baker from Texas A&M University—Commerce wrote that a student's first semester on the CC tuba may require the assigning of a lighter/easier solo. The solos by Haddad, Marcello, Vaughan Williams, and Capuzzi fit Dr. Baker's description perfectly.

Don Haddad's *Suite for Tuba* is a three-movement work for solo tuba and piano. The piece is melodically and rhythmically engaging. The key of C minor works particularly well on the CC contrabass tuba with many open partials and harmonics, meaning notes played on the open bugle with no valves engaged. This solo can help establish a characteristic quality of sound and pitch on the instrument's fundamental harmonics. Syncopated rhythms in the Haddad may be a challenge for younger students. However, this presents an excellent opportunity to become rhythmically accurate on the CC contrabass tuba, which can be rhythmically unclear at times due to the acoustical nature of the instrument (the same is true of the BBb contrabass tuba). Dr. David Earll from Ithaca College points out that working on immediacy of articulation will sharpen rhythmic accuracy. Overall, this solo is easily accessible by younger students.

Benedetto Marcello's *Sonata No. 1 in F major* is often among student audition lists and younger level solo competitions, such as the student-level competition at the *Leonard Falcone International Euphonium and Tuba Festival*. The four-movement solo features opportunities for lyrical and technical playing. The slower movements, movements one and three, offer no significant challenges. They are both tuneful, harmonically simple, and have a limited range. The slow tempos in these movements lend themselves to becoming musically stale, especially by younger players. The faster movements, movements two and four, can help students develop clarity by working on quick articulations, agility, and dexterity when engaging the valves. If a student struggles with valve combinations on the CC contrabass tuba, the faster movements can help solidify note identification and corresponding valves. The valve combinations are not overly complicated in the fast movements, and the solo's repetitive nature allows for further reinforcement of engaging the correct valves. Multiple survey-takers favored Donald Little's

arrangement of this work. Mr. Little's arrangement features helpful musical ideas such as added dynamics, articulations, and recommended breathing spots.

Ralph Vaughan Williams's *Six Studies in English Folk-Song* is a solo that works well on both tubas. Chapter 2 presented this work for learning the F bass tuba. However, *Six Studies* is equally useful when learning the CC contrabass tuba. Audiation of the melody should be an accessible skill for students since the work is based around simple folk-like songs, and the solo is not harmonically complex. Except for a few high notes, the solo is within range for a young college-level student. When playing the *Six Studies* on the CC contrabass tuba, breathing and phrasing are more difficult on the larger instrument because of the large amount of air required to play it. However, this offers an excellent opportunity to map out a breathing plan and will help students learn how to make a phrase with multiple well-placed breaths.

An additional benefit of using Vaughan Williams's *Six Studies* is that two great recordings exist for reference. The solo was recorded by Gene Pokorny of the Chicago Symphony Orchestra on his album *Tuba Tracks* and by David Zerkel on his album *Tuba Helper*. Multiple survey takers reference David Zerkel's recording as the gold standard on how this work should sound when played on the CC contrabass tuba.

Antonio Capuzzi's *Andante & Rondo* is the most challenging of the recommended solos. However, it is easily accessible to most young students. The work offers an excellent opportunity for developing lyrical and technical skills on the CC contrabass tuba. In the *Andante* movement, emphasis on rhythm is necessary. The shifting duple to triple rhythms can be an obstacle to some; however, the overall rhythmic activity is not overly challenging. The *Rondo* movement is tuneful and upbeat. The movement heavily relies on diatonic passages and patterns that include mixed articulations. This movement will help further reinforce major scales and clarity of articulation on the new instrument.

Table 3.1 offers a list of all the solos mentioned by participants in the survey. The list is specific to the first time CC contrabass tuba player. It is not a complete list of all of the solos available for the instrument. David Zerkel's article *Do You C What I C?* that was printed in the *International Tuba Euphonium Association Journal* (Volume 30 Number 2) offers a more complete and comprehensive literature review focusing on beginner to professional solos for the

CC tuba.²⁰ Table 3.1 represents predominantly beginner to intermediate level solos for the CC contrabass tuba, and most of them are found in Mr. Zerkel's "Level 1" category.²¹

Table 3.1: Data from the responses to the survey question, "What solos do you assign to a student starting out on CC contrabass tuba?"

Composer and Title	Recommendation Percentage
Haddad: Suite for Tuba	44%
Marcello: Sonata No. 1 in F Major for Tuba	36%
Vaughan Williams: Six Studies in English Folk Song	36%
Capuzzi: Andante & Rondo	36%
Lebedev: Concerto in One Movement	28%
Barat: Introduction and Dance	28%
Hartley: Unaccompanied Suite	20%
Hindemith: Sonata for Tuba and Piano	20%
Bach: Air & Bourree	12%
Previously Learned Solos on BBb Tuba	12%
Transcriptions	12%
Grant: Stuff	8%
McFarland: Sketches	8%
Marcello: Sonata in C Major	8%
Persichetti: Serenade	8%
Student's Choice	8%
Vaughn: Concertpiece No. 1	8%
Bach: Cello Suites	8%
Arban: Theme & Variation Studies	4%
Barnhouse: Barbarossa	4%
Beach: Southern Lamento	4%
Curnow: Concertino	4%
Wilder: Effie Suite	4%
Frackenpohl: Concertino	4 %
Grant: Just a Thought	4%
Gregson: Tuba Concerto	4%
Holmboe: Sonata	4%
Harmon: Call of the River	4%
Beethoven: Variations on the Theme of Judas Maccabeus	4%
Nelhybel: Suite	4%
Senaille: Allegro Spiritoso	4%
Strauss: Nocturno	4%
Gabrielli: Ricercar No. 7	4%

²⁰ David Zerkel, "Do You C What I C?," accessed January 5, 2021, https://www.iteaonline.org/members/journal/30N2/30N2doyouC.php.

²¹ Zerkel, "Do You C."

Table 3.1 - continued

Composer and Title	Recommendation Percentage
Voxman: Concert and Contest Collection	4%

The survey results for the question regarding orchestral or band excerpt recommendations for the beginner CC contrabass tuba student showed that Richard Wagner's Overture to *Die Meistersinger von Nürnberg* was the most frequently used excerpt, followed by Sergei Prokofiev's Symphony No. 5 in Bb major, Op. 100.

Richard Wagner's Overture to *Die Meistersinger von Nürnberg* also appears on the list of excerpts used to introduce the bass tuba. The work is one of the few excerpts that can be appropriately played on either instrument. Wesley Jacobs, former principal tubist of the Detroit Symphony Orchestra, substantiates this point in his book on orchestral excerpts called *The One Hundred*.²² Regardless of the tuba chosen for the work, the tuba part in *Die Meistersinger von Nürnberg* should be light and bright due to this opera's comedic nature.²³

Dr. Blake Ryall from Mississippi State University points out that *Die Meistersinger von Nürnberg* can be used to cross-train between the bass and contrabass tubas. The opening to Rehearsal A suits the strengths of the CC contrabass tuba, whereas the melodic passage from Rehearsal J to Rehearsal L suits the strengths of the F bass tuba. A student can play both excerpts on both the bass and the contrabass tubas so that one tuba's strengths can inform the other's weaknesses.

Sergei Prokofiev's Symphony No. 5 in Bb major, Op. 100 is ideal for the contrabass tuba. The excerpt from Rehearsal 3 to Rehearsal 6 in the first movement features a shifting melodic and harmonic role for the tuba, addressing several essential skills. These skills include the ability to shift from playing melodically to supportively in the contrabass tuba's low register. A student can also improve their ability to slur smoothly between the instrument's low and medium registers.

Thirty-six percent of survey participants proposed waiting to introduce excerpts until the teacher is satisfied with the student's fundamental understanding of playing the contrabass tuba, remarking that fundamentals and etudes should be introduced before working on excerpts. The

28

²² Wesley Jacobs, *The One Hundred* (Maple City, MI: Encore Music, 2010), 112.

²³ Ibid.

same is not true with the bass tuba since the bass tuba is typically introduced after a student has developed his/her fundamental skills. However, for some students, excerpts can spark a curiosity and desire to pursue further study on the tuba.

Below is a list of all excerpts that are recommended by the survey respondents. This is a suitable list for a young college-level student using excerpts to aid in their CC contrabass tuba development.

Table 3.2: Data from the responses to the survey question, "What orchestral or band excerpts do you assign to a student starting out on CC contrabass tuba?"

Composer and Title	Recommendation Percentage
Wagner: Die Meistersinger von Nürnberg-Overture	60%
Prokofiev: Symphony No. 5 in Bb Major, Op. 100	52%
Only Fundamentals and Etudes	36%
Wagner: "Ride of the Valkyries" from Die Walküre	32%
Sousa: The Stars and Stripes Forever	20%
Bruckner: Symphony No. 7 in E Major, WAB 107	16%
Mahler: Symphony No. 2	12%
Grainger: Lincolnshire Posy	12%
Brahms: Symphony No. 2 in D Major, Op.73	8%
Bruckner: Symphony No. 4 in Eb Major, WAB 104	8%
Holst: First Suite for Military Band, Op. 28, No. 1	8%
Holst: Second Suite in F for Military Band, Op. 28, No. 2	8%
Mahler: Symphony No. 1 in D Major	8%
Mahler: Symphony No. 5 in C# Minor	8%
Mahler: Symphony No. 6 in A Minor	8%
Prokofiev: Romeo and Juliet, Op. 64	8%
Respighi: Fountains of Rome	8%
Tchaikovsky: Symphony No. 4 in F Minor, Op. 36	8%
Brahms: Academic Festival Overture	4%
Bruckner: Symphony No. 8 in C Minor, WAB 108	4%
Dvorak: Symphony No. 9 in E Minor, Op. 95, B. 178	4%
Grantham: J'ai été au bal	4%
Holst: Hammersmith	4%
Holst: The Planets	4%
Respighi: Pines of Rome	4%
Tchaikovsky: 1812 Overture, Op. 49	4%
Tchaikovsky: Symphony No. 5 in E Minor, Op. 64	4%
Tchaikovsky: Symphony No. 6 in B Minor, Op. 74	4%
Vaughan Williams: Toccata Marziale	4%

When survey respondents were asked, "What etudes do you assign to a student starting out on CC Contrabass Tuba?", there was less diversity in responses compared to the other repertoire categories. While there were some outliers, most survey participants gravitated toward the same three etude books. Etudes by Bordogni (92%), Blazhevich (84%), and Kopprasch (68%) were the most often recommended among survey respondents. These three etude books are easily accessible by any level of tuba student as they are mostly melodic, simple in harmony, and limited in range. The Blazhevich and Kopprasch etudes are also typically used as audition material at universities for either acceptance into the program or ensemble placement auditions. These are not the only books a student should focus on when learning the CC contrabass tuba for the first time; however, they are time-tested and an advisable place to start. Below is a list of all etude books suggested by participants in the survey.

Table 3.3: Data from the responses to the survey question, "What etudes do you assign to a student starting out on CC contrabass tuba?"

Composer and Etude Book Title	Recommendation Percentage
Rochut: Melodious Etudes Selected from the Vocalises of Marco	92%
Bordogni	
Blazhevich: 70 Tuba Studies for BBb tuba	84%
Kopprasch: 60 Selected Studies for BBb tuba	68%
Tyrell: 40 Advanced Studies for Bb Bass	48%
Arban: 14 Characteristic Studies from Arban's Complete Celebrated	40%
Method for the Cornet	
Snedecor: Low Etudes for Tuba	40%
Grigoriev: 78 Studies for Tuba	32%
Concone: Lyrical Studies	20%
Fink: Studies in Legato	12%
Vasiliev: 24 Melodious Etudes for Tuba	8%
Bona: Rhythmical Articulation	4%
Jacobs: Low Legato Etudes for Tuba	4%
Swanson: Studies and Melodious Etudes for Tuba	4%
Bach: Cello Suites (played one octave down)	4%
Kuehn: 60 Musical Studies	4%
Rodriguez: Low Blows for Tuba	4%

A wide variety of responses were offered to the survey question on exercises and

fundamentals used for the CC contrabass tuba. For this reason, Table 3.4 is divided into "Published Books" and "Nondescript Exercises and Fundamentals."

The Brass Gym by Sam Pilafian and Patrick Sheridan was the most recommended book for working on contrabass tuba fundamentals in the published books category. The Brass Gym was also the most recommended etude book for use on the bass tuba as well. Thus, the opportunity to use this book for cross-training between the tubas is an obvious option. However, a student beginning their studies on the CC contrabass tuba will likely not be simultaneously learning the bass tuba. Students should strive to become proficient on the exercises presented in The Brass Gym on the contrabass tuba first. Doing so will allow them to start cross-training once the bass tuba is introduced, making for an easier transition to playing both bass and contrabass tubas.

The second-most recommended exercise and fundamental book was Jean-Baptiste Arban's *Complete Conservatory Method for Cornet*. Like the Bordogni, Blazhevich, and Kopprasch etude books discussed earlier, Arban's book has been in the tubist repertoire for several generations, with the book first appearing for cornet in 1879.²⁴ Often, tubists still use the original cornet edition. However, Dr. Jerry Young from the University of Wisconsin–Eau Claire and Wesley Jacobs of the Detroit Symphony released a comprehensive edition for tuba in 2000 through *Encore Music Publishers*.²⁵ This edition for tuba comes highly recommended and has been a welcome resource for tubists for the past twenty years.

Table 3.4 features a list of all suggested published books used for exercises and fundamentals. Not all of these books are specifically for the tuba, and some are in treble clef; nonetheless, they are still practical resources for students beginning their studies on the CC contrabass tuba.

Table 3.4: Data from the responses to the survey question, "What exercises/fundamentals do you assign to a student starting out on CC contrabass tuba?" (Published)

Published Books Used for Exercises and Fundamentals	Recommendation Percentage
Pilafian/Sheridan: The Brass Gym	32%
Arban: Complete Method for Cornet	28%
Lin: Lip Flexibilities: For All Brass Instruments	20%

²⁴ Jean Arban, Arban's Complete Conservatory Method (New York: Carl Fischer Music, 1893).

²⁵ Wesley Jacobs and Jerry Young, *Arban Complete Method for Tuba* (Maple City, Michigan: Encore Music Publishers, 2000).

Table 3.4 - continued

Published Books Used for Exercises and Fundamentals	Recommendation Percentage
Rusch/Jacobs: Hal Leonard Advanced Band Method	16%
Alessi: Warm-Up and Maintenance Routine	16%
Davis: The 20 Minute Warm-Up	12%
Olka: Fundamental Routines (via YouTube)	12%
Schlossberg: Daily Drills and Technical Studies	12%
Vining: Daily Routines for Tuba	12%
Clarke: Technical Studies for the Cornet	12%
Baer/Bell: Bell Scales	8%
Bobo: Mastering the Tuba	8%
Edwards: Lip Slur Melodies for Trombone	8%
Tindall: Fundamentals Routine	4%
Verzari: Exercises on Fundamental & Harmonic Tones	4%
Guggenberger: Basics Plus	4%

Regarding the nondescript exercises and fundamentals, "major and minor scales" appeared with the highest frequency rate (52%) from the surveys. After "major and minor scales," the other exercises and fundamentals mentioned in the survey dropped off sharply. While the other exercises did not receive much attention from participants in the survey, they can still develop proficiency on the CC contrabass tuba. As the designation "nondescript" implies, the following list in Table 3.5 represents exercises that are not printed, with the likely exception of reading lead sheets. These exercises are usually taught through demonstration and teacher modeling.

Table 3.5: Data from the responses to the survey question, "What exercises/fundamentals do you assign to a student starting out on CC contrabass tuba?" (Nondescript)

Nondescript Exercises and Fundamentals	Recommendation Percentage
Major & Minor Scales	52%
Lip Flexibilities and Slurs	16%
Articulation Exercises	12%
Arpeggios	12%
Long Tones	8%
Low Range Exercises	8%
Buzzing (On Mouthpiece) Exercises	4%
Pedal Tone Exercises	4%
Chromatic Fingering Exercises	4%
Range Exercises	4%

Table 3.5 - continued

Nondescript Exercises and Fundamentals	Recommendation Percentage
Turn Studies	4%
Reading Basslines and Lead Sheets	4%

The question "Do you have any other assignments for a student starting out on CC contrabass tuba" produced various suggestions. Playing tunes by ear in all twelve keys was recommended in the survey more frequently than any other suggestion. Below is a list of supplementary assignments the respondents give to their students outside of assigning traditional repertoire.

- Playing Tunes by Ear in All 12 Keys
- Listening Assignments (Live and Recordings)
- Daily Sight-Reading Assignments
- Tunes and Scales with Drones
- Assigning Transcriptions of Vocal Music (Examples include Puccini Arias and Bach Cantatas)
- Reciting Note Names Out Loud while Fingering Through a Passage
- Ear Training Assignments
- Transposition Assignments
- Reading Interviews/Articles about Arnold Jacobs

CHAPTER 4

UNIVERSITY STUDIO TEACHING

When reviewing current trends in tuba studios across the United States, the bass and contrabass tuba have become inextricably linked. It is unlikely that the tuba studio at a U.S. university would have one type of tuba and not the other. For this reason, we must consider how the two instruments exist side-by-side and how this trend has affected teaching philosophies and pedagogy. The remaining part of this treatise will focus on the dual-tuba demand.

Non-Performance Majors

Respondents to the survey did make distinctions between tuba performance majors and non-performance majors. The survey revealed that the current belief among university teachers is that different majors should not have different expectations. Not a single survey participant suggested or altered their curriculum for non-performance majors. Aside from being more patient with non-performance majors, the standards are the same. Fritz Kaenzig from the University of Michigan sums up the consensus among respondents when he writes, "I didn't have different expectations for performance majors or music ed majors, other than being patient when the mused [music education] majors got too busy with classes, at mid-term time, especially."

When asked, "Do you encourage education (or non-performance) majors to play bass tuba before they graduate?", 76 percent of survey respondents said they do encourage non-performance majors to play the bass tuba, but they do not require students to do so. Survey respondents noted that non-performance majors can benefit from learning the bass tuba. One such benefit is that playing the bass tuba can spark more interest in performing. The bass tuba can contribute to the ability to effectively play in chamber groups such as brass quintets and tuba euphonium quartets. Playing the bass tuba expands the repertoire for a student, and the bass tuba can help a student's overall musical development, which informs their teaching. Dr. William Waterman from Boise State University wrote, "I think they need to experience it for solo rep and chamber music playing. The color and lightness of what it brings is important. It also helps with understanding transposition and how tubas do not transpose but other instruments do." Dr. Stephanie Ycaza, tuba professor at the University of Northern Iowa, noted that she conducts a tuba euphonium ensemble in which everyone has the opportunity to play the F bass tuba, thereby

allowing all students regardless of their university major to experience the instrument. Further, several respondents like to have their music education majors perform a portion of their junior or senior recital on the F bass tuba.

The 24 percent of respondents who said they did not introduce the bass tuba to non-performance majors gave the following reasons. The bass tuba will only be introduced if the student seeks to go to graduate school as a tuba performance major, and if a student explicitly requests to learn the bass tuba, then the instrument will be introduced.

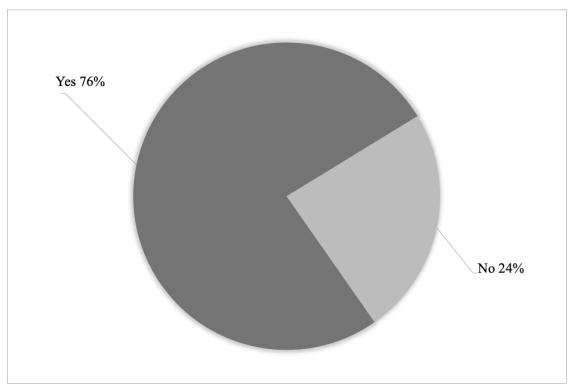


Figure 4.1: Data from the responses to the survey question, "Do you encourage education (or non-performance) majors to play bass tuba before they graduate?"

When it comes to non-performance majors playing the CC contrabass tuba, the recommendation percentage is even higher at 92 percent, compared to the 76 percent for the F bass tuba. Three main reasons emerged as to why respondents felt so strongly about non-performance majors having experience with the CC contrabass tuba. First, studying the CC tuba will give students an understanding of each tuba's differences and challenges, which will help them as educators. Second, the CC tuba is typically physically easier to play compared to the BBb contrabass tuba. Thus, the CC tuba will help with the efficiency of playing and will make

more advanced literature accessible. Third, most teachers do not distinguish between non-performance majors and performance majors in terms of performance standards, and since the CC tuba is the primary contrabass tuba for professional use in the United States, any student of the tuba beyond high school should have experience with the instrument. Many respondents encouraged non-performance majors to purchase a CC tuba; however, they could still learn on a university-loaned instrument if a student did not make that choice. Gene Pokorny, principal tubist with the Chicago Symphony Orchestra and Northwestern University's tuba professor, wrote in his survey:

Education majors should be finding themselves on the other side of the baton occasionally. If they have a CC tuba, their chances of attaining a position in a local professional/community orchestra or band will be enhanced because of the increased possibility of being awarded a position because of the CC tuba's quality as a good audition instrument in favor of a BBb tuba. That has mostly to do with clarity.

This response was insightful as Mr. Pokorny favored the CC tuba for his students as a source of future employment or monetary gain. He understands that the instrument will give his students an advantage for securing a position or job regardless of the degree earned.

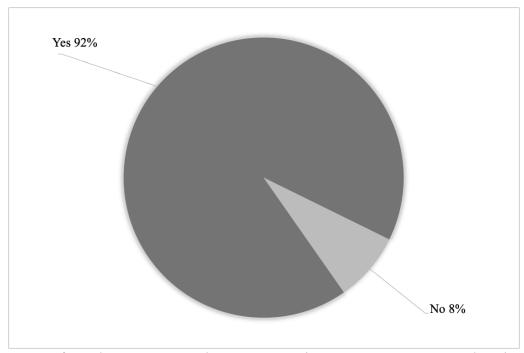


Figure 4.2: Data from the responses to the survey question, "Do you encourage education (or non-performance) majors to play CC before they graduate?"

Lessons with Bass and Contrabass Tubas

In the last sentence of Dr. Mitchell's dissertation, he makes the statement that "The era of 'one tuba fits all' is at an end and it is the responsibility of the college and university establishment to provide the most comprehensive experience possible for the student tubist." ²⁶ Building on Dr. Mitchell's final statement, the next logical question is how do colleges and universities better serve their students in the new era of dual tubas? The question "Do you encourage or require students to bring both bass and contrabass tubas to lessons? Or do you prefer to teach separate lessons for both?" was intended to gather the current solutions to teaching the two different instruments simultaneously.

Forty-four percent of respondents favored both tubas be addressed in each lesson. Dr. Alex Lapins from the University of Tennessee stated that, "Working on each back-to-back can bring what is easy on C into the approach to F, and vice-versa." With a similar sentiment, Dr. Cale Self from the University of West Georgia wrote, "I like for them to have both and to go back and forth at least once during each lesson. As Sam [Pilafian] used to say, the little horn [bass tuba] and the big horn [contrabass tuba] have things they can both teach one another." By going between the different instruments with regularity, a student can take advantage of one tuba's particular strengths to inform what may be a weakness on the other tuba.

A common theme from respondents for addressing both tubas each lesson was learning how to alternate between the two instruments effortlessly. Alan Baer, principal tubist with the New York Philharmonic, writes in his book, *Cross Training and Tonic/Dominant Scales for Tuba*: "These two instruments play and feel completely different. Changing horns, and being comfortable with these changes at any given time, is a must." This point is directly applicable to most advanced students because professional and graduate school auditions typically have the player go back and forth between the bass and contrabass tubas. The skill of switching tubas effortlessly at any moment is an absolute necessity, and this skill can be cultivated and honed through weekly lessons by addressing both instruments.

Twenty-four percent of survey respondents split the bass tuba and contrabass tuba into different lessons. Donald Little from the University of North Texas wrote, "As a rule, students progress and develop better by taking separate lessons on the bass tuba and contrabass tuba.

²⁶ Mitchell, "Teaching", 42.

²⁷ Baer, i.

Otherwise, either the bass tuba or the contrabass tuba can be neglected depending on the student." At the same time, Northwestern University's tuba professor Gene Pokorny states, "One tuba per lesson is OK. Hauling two tubas around is detrimental to one's health, especially their back." When delegating which tuba will be addressing in a weekly lesson, Stephanie Ycaza from the University of Northern Iowa offers the solution of planning lessons so that a student alternates each week as to which tuba is worked on.

Another 24 percent of respondents said they do not require that students bring both tubas to their lessons. Instead, the instruments focused on in a lesson are reliant on the student's current needs and repertoire. Survey takers noted that a student's repertoire is the determining factor for the tubas used in each lesson. Whether a student has a recital, competition, military band audition, or an orchestral audition all factor into the tubas used in each lesson. Another 8 percent of respondents noted that bringing two tubas is not required; however, their students typically play both of their instruments in each lesson.

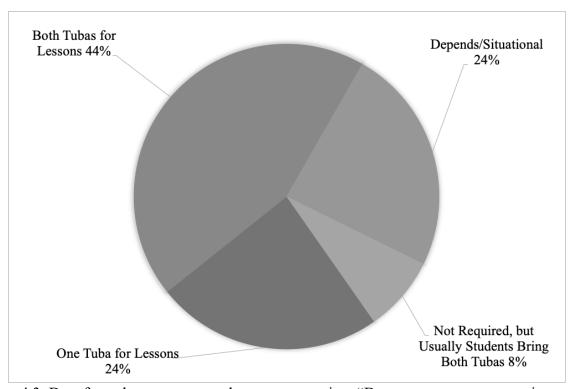


Figure 4.3: Data from the responses to the survey question, "Do you encourage or require students to bring both bass and contrabass tubas to lessons? Or do you prefer to teach separate lessons for both?"

Performances with bass and contrabass tubas. Beyond lessons, it is also important to examine which tuba or tubas are being used for performances within university settings. The survey question, "Do you encourage or require students to perform in recitals/studio class/departmentals on both bass and contrabass tubas throughout the course of a semester?" revealed that a substantial majority, at 76 percent, encouraged their students to perform using both bass and contrabass tuba throughout a semester. Dr. Adam Frey from the University of North Georgia expressed that once a student is stable on the F bass tuba, they should keep a healthy rotation of repertoire between the two instruments. This rotation will ensure that a student's skills continue to develop on both tubas by avoiding one tuba getting more attention than the other.

The CC contrabass tuba tends to be underused in solo performances. Moreover, while it is seldom a requirement, if a teacher notices that one tuba (usually the F bass tuba) is getting more performance time than the other, a teacher may advise the student to perform on the underused tuba. By diversifying which tuba is used in recitals and studio classes, a student will develop a performance skillset and mindset on both, thereby avoiding the trap of becoming a technician on one instrument and a musician on the other.

Some teachers, 8 percent, did distinguish between the levels of students. Younger students may be more comfortable playing on one tuba or the other for a semester, whereas more advanced players can handle playing both instruments with regularity. Dr. Justin Benavidez from Florida State University wrote, "I do encourage seniors and graduate students to perform on both tubas in recitals." With a similar point of view, Ryan Sorenson from Stetson University stated, "They are required to play solos on CC for their Freshman and Sophomore recitals ... For junior and senior recitals, the student is required to play at least one piece from both instruments."

Eight percent of respondents stated that the tuba or tubas performed on throughout the semester are dependent on the student's repertoire. For example, if a student has a military band audition approaching that only requires the contrabass tuba, a student may only perform on that instrument during the semester.

Another eight percent of the survey participants noted that they do not encourage or require students to play both tubas in recitals or studio classes in a single semester. The philosophy is that no concern or attention should be given to the tuba's key or type.

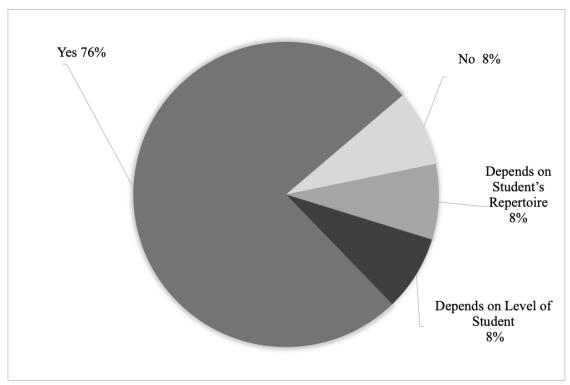


Figure 4.4: Data from the responses to the survey question, "Do you encourage or require students to perform in recitals/studio class/departmentals on both bass and contrabass tubas throughout the course of a semester?"

CHAPTER 5

CURRENT TEACHING PHILOSOPHIES

Sound Concepts

It is not easy to quantify the ideal bass and contrabass tuba sounds. While musical elements such as time, rhythm, and pitch are indisputable, what constitutes an "ideal" sound is subjective. It is encouraged that readers view this chapter not as a "right or wrong" notion of sound concepts, but as ideas and opinions on sound from which teachers and students can choose and incorporate as they prefer into their concepts of the sounds of both instruments. Below are three insightful quotes from respondents to keep in mind as this document attempts to describe concepts of sound:

My concept of sound is my own and I don't sound like anyone else.

Raul Rodriguez—Texas State University & Breckenridge Festival Orchestra

You should sound like you.

Jeffery Baker—Texas A&M University-Commerce & Dallas Opera

I certainly do [have sound concepts] for myself, but I don't impose those concepts on my students. What I want them to achieve is their own voice.

Charles Villarrubua—University of Texas

In Dr. Randolph's 1987 survey, he concluded that the equipment used, specifically the brand of the tuba and the mouthpiece type, is how professional tubists achieve their desired sound on each instrument. This is the premise of his third and final article, "The Use of the F-Tuba in the College Teaching Studio". However, Dr. Randolph urged his readers to view his work as only a "snapshot" of the current situation as he realized that rapid advancement in tuba manufacturing was underway, especially for the F bass tuba. Dr. Mitchell's 2006 survey updated the same inquiries and conclusions on equipment that were originally presented by Dr. Randolph. The year 2006 was the last time the tuba community saw an academic inquiry into

²⁸ David Randolph, "The Use of the F-tuba in the College Teaching Studio," *The T.U.B.A. Journal* 17, no. 1 (Fall 1989):18.

²⁹ Randolph, "The Use", 18.

³⁰ Mitchell, "Teaching," 31–40.

modern equipment trends. It is time for another survey regarding equipment, because much has changed.

Today, the quality of the instruments and the marketplace for these instruments look very different. Once-prevalent brands such as Alexander and Hirsbrunner have seen a decline in use, while new brands such as Adams and Eastman have emerged as viable professional instruments. It should also be mentioned that tuba brands from China were not a factor in 1987 or 2006; brands such as Mack Brass and Wessex have seen an increase in use among college students.

While equipment is not the focus of this document, 30 percent of respondents stated that equipment choices would take care of the sound differences between the two tubas on their own. However, each student has their own unique situation, and some may not have access to the equipment on which they would like to play initially. The University of Miami's tuba professor, Dr. Aaron Tindall, wrote that equipment is a factor but should not be the only concern; a student should get the best instrument available to them and start there.

Professor David Zerkel uses the phrase "The Arms Race" to accurately describe the notion of using increasingly larger equipment to achieve desired sound results; this point is especially true when considering the contrabass tuba.³¹ Intriguingly, the survey data revealed that "The Arms Race" is giving way to a more nuanced way of thinking about sound concepts for the tuba, at least in universities.

Figure 5.1 shows that 22 percent of respondents favor having the repertoire and musical function determine the sound concept. This group of respondents indicated that a tubist's sound should be flexible in any given situation regardless of the equipment used. The University of Wisconsin–Platteville's tuba professor, Dr. Daniel Rowland, wrote that "there is more to sound concept than just differentiating between the two horns. Each piece, each excerpt, heck even different sections of pieces and excerpts can have different sound concepts."

Thirty-five percent of respondents wrote that they do have different sound concepts between the bass and contrabass tuba. These respondents regularly turned to descriptive words to describe the sound concepts they value in each tuba. Interestingly, participants also identified descriptive words that apply to both tubas, recognizing that both sound concepts overlap. Table 5.1 features all the descriptive words used by respondents. The descriptive words used by survey participants are separated into three categories. Two categories represent sound concepts for the

³¹ Zerkel, "Do You C What I C?".

two specific types of tuba, and one category represents sound concepts that apply to both tubas. It is encouraged that a young tubist analyzes the table below and chooses words that fit into their sound concept for each tuba.

Table 5.1: Data from the responses to the survey question, "Do you have different concepts of sound for the bass and contrabass tubas? If so, what are those differences?"

for the F Bass Tuba for the CC				Descriptive V for Both	
Descriptive Word	Percentage of Usage	Descriptive Word	Percentage of Usage	Descriptive Word	Percentage of Usage
Bright	24%	Wide	16%	Resonant	24%
Light	20%	Resonant	16%	Clear	12%
Lean	12%	Dark	12%	Open	8%
Narrow	12%	Broad	8%	Full	8%
Sweet	8%	Round	8%	Dark	8%
Focused	8%	Blended	4%	Relaxed	8%
Compact	4%	Robust	4%	Rich	4%
Soloistic	4%	Thick	4%	Focused	4%
Colorful	4%	Heavy	4%	Warm	4%
Delicate	4%	Supportive	4%	Round	4%
Brilliant	4%	Large	4%		
Clear	4%	Dense	4%		
Heroic	4%	Breadth	4%		

When describing the F bass tuba sound, the most valued qualities by respondents are brightness and lightness. These qualities work well in solo and chamber settings. The contrabass tuba's most valued sound qualities are wideness and resonance. These sound concepts work well in large bands and orchestras. However, it is encouraged that students and teachers mix and match the sound qualities that they value in each instrument. The descriptors above are not exclusive to one tuba; however, both tubas should be resonant and clear.

The few participants that only have a slight difference (9%) or no difference (4%) at all between the bass and contrabass tuba emphasized similar sound concepts for both. These participants often used descriptors from the third column of Table 5.1.

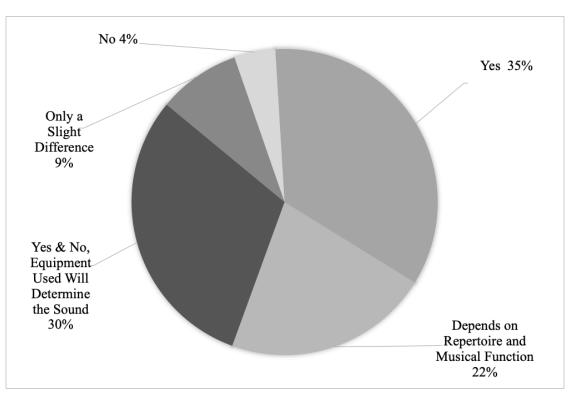


Figure 5.1: Data from the responses to the survey question, "Do you have different concepts of sound for the bass and contrabass tubas? If so, what are those differences?"

Fundamental Approaches

Sixty-eight percent of respondents said that they do not have a fundamental approach that differs between the tubas. This group elects to teach both tubas the same in terms of the fundamentals, with some stating that the only real difference is the size of the mouthpieces: a larger mouthpiece is used for the contrabass tuba and a smaller mouthpiece is used for the bass tuba. Further, a few respondents noted the dangers of compartmentalizing the two tubas, advocating that we should view both tubas as musical instruments regardless of the differences.

Interestingly, 20 percent of survey respondents said that the only difference in fundamentals between the bass and contrabass tuba is in how the air is utilized. This group wrote that the bass tuba requires a more focused airspeed and aperture size, and that a student should strive for a focused buzz in the mouthpiece. John Manning from the University of Iowa wrote, "Students generally realize the difference in 'blow' and 'embouchure' required to switch between the instruments." With a similar sentiment, Dr. William Waterman from Boise State University states, "it's all about the air, but the air should be balanced for the bore size of the instrument, don't overblow the bass tuba." The differences in air and embouchure are noticeable

when playing the instruments back-to-back; however, some students will develop best by recognizing these differences, while others may find it better to ignore them and treat both tubas as fundamentally the same instrument.

The 12 percent of respondents who said they do have a fundamental approach that differs between the bass and contrabass tuba stated tone production, intonation tendencies, and articulation as those differences. Dr. David Earll from Ithaca College points out that the CC contrabass tuba has a slower response time than the F bass tuba because of the additional four feet of tubing. Due to the size difference, the contrabass tuba requires a more direct and well-defined articulation to achieve the same level of articulation clarity found on the bass tuba.

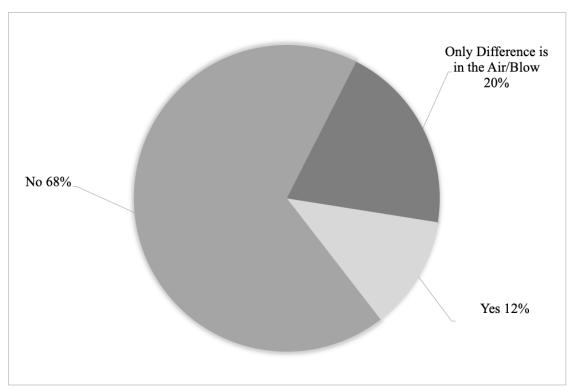


Figure 5.2: Data from the responses to the survey question, "Do you have any fundamental approaches to a concept that differ between bass and contrabass tubas? If so, what are those differences?"

Daily fundamentals and routines on both tubas. Thirty-two percent of survey respondents recommend that their students complete daily fundamentals and routines on both instruments. Dr. Ryan Robinson from Oklahoma State University wrote that it is important to have the same routine for both tubas to avoid using the bass tuba for only high notes and the contrabass tuba for only low notes. Likewise, Dr. William Waterman from Boise State University wrote, "cross-

training [using both tubas] is excellent to help with ear training and coordinating the buzz and the ears." Further, understanding how to play the contrabass tuba well allows one to play the bass tuba with more resonance and tone. Moreover, understanding how to play the bass tuba well will help one's contrabass tuba playing when it comes to clarity and lightness. This pedagogical philosophy can be cultivated by completing daily fundamentals on both tubas.

Twenty-eight percent of respondents recommend that the majority of fundamentals be completed on the contrabass tuba. This group encourages their students to pursue their fundamentals primarily on the contrabass tuba. The contrabass tuba promotes better airflow efficiency, more so than the bass tuba, due to the additional length of tubing (the CC tuba is four feet longer than the F tuba). Airflow and sound production are strengths for the contrabass tuba that translate well to the bass tuba. A student trying to address airflow and sound production fundamentals predominantly on the bass tuba will likely develop a thin, uncharacteristic tuba sound on both instruments.

Sixteen percent of respondents wrote that a student's fundamental and routine regimen depends on that student's current needs. Sometimes, students may need to spend more time on one tuba or the other depending on where they are in their development. This is especially true of younger students. For more advanced students, the daily routine may revolve around preparing themselves for upcoming performances, recitals, and auditions. During this preparation time, one tuba or the other may get more attention depending on the repertoire.

No respondent recommended that fundamentals be done solely on the bass tuba. However, one interesting suggestion that went against the majority was from Raul Rodriguez, the tuba professor at Texas State University, who wrote, "I encourage my students to start with the F, do all fundamentals and then see if they can make the switch to a warm and resonant CC tuba sound without being influenced by the F tuba." This approach should not be done more than once a week; however, this method could prove useful for some students who are looking to strengthen their ability to transition between the two instruments seamlessly.

Many tubists have found success completing fundamentals on both tubas, as suggested by 32 percent of survey respondents. Cross-training between the two tubas is an engaging way to improve skills on both instruments simultaneously. Completing fundamentals entirely on one tuba or the other will lead to the neglect of one of the tubas. Alternating tubas between every exercise, or every second or third exercise, can be an effective way to practice fundamentals.

Additionally, the data from this question strengthens the conclusion that there is a need for a cross-training routine or etude book designed for playing on both the CC contrabass tuba and the F bass tuba.

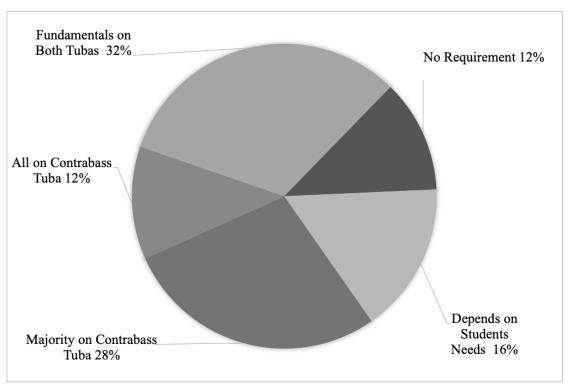


Figure 5.3: Data from the responses to the survey question, "Do you encourage or require students to complete their daily fundamentals/routine on both contrabass and bass tubas? Why?"

Time management between bass and contrabass tubas. The last question in the survey was, "How would you recommend students split their time between both contrabass and bass tuba?" Figure 5.4 displays that the overwhelming response was that it "depends on the student's needs." The main point gathered from this data is that students should spend most of their time on the contrabass tuba. Except for a single survey respondent who advocated for a fifty-fifty split in time, the other survey takers had variations, with the contrabass tuba always allotted the bulk of the time. Dr. Carl Kleinsteuber, retired principal tubist of the Hague Philharmonic, writes, "Always, ALWAYS keep the big tuba [contrabass tuba] sounding healthy."

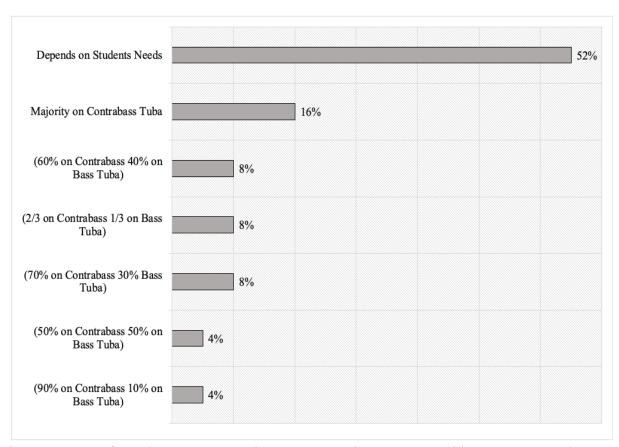


Figure 5.4: Data from the responses to the survey question, "How would you recommend students split their time between both contrabass and bass tubas? Should one tuba get more practice time than the other?"

CHAPTER 6

CONCLUSION

Since the late 1980s, the bass tuba's implementation in university curricula has placed a new demand on university students and teachers. The bass tuba is no longer viewed as a utility instrument only intended for specialized purposes; instead, it has become an absolute necessity for any serious student of the tuba. Tubists are now required to be proficient at both the bass and the contrabass tuba in academic and professional spheres. A student who only studies the contrabass tuba will be impeded in developing the skills required of modern tubists. It is thus evident that the era of using one tuba has ended, the era of dual tubas has begun.

The culmination of this document and the data from the survey has led to the conclusion that a current need exists for pedagogical resources addressing the dual-tuba demand on students. Pedagogical resources such as daily cross-training routines and etude books to be used for both the bass and contrabass tuba will help bridge the gap in the current lack of resources. Appendix A of this document offers the beginnings of such an etude book. This book will include materials that are intended to be played on both tubas. Each etude will feature strengths and weaknesses for the bass and contrabass tuba.

The goal of the book is to play each etude through on both tubas as seamlessly as possible. Professor Michael Grose from the University of Oregon sums up this pedagogical approach when he writes, "encourage the philosophy that both are tubas, and both have something to teach the other." To further expand skills on both tubas, each etude will be in a different key. This will help students become comfortable playing in any key on either tuba. Etudes will be in all twelve major and twelve minor keys, for a total of twenty-four etudes.

Additionally, Appendix B offers an example of a daily cross-training routine that can be used by any student at any level playing both the bass and contrabass tubas. This routine is composed of my own material and from material suggested by survey respondents. The first exercise, titled "Cross Fit Long Tones," features the same long tone pattern transposed for both the CC contrabass tuba and the F bass tuba. The long tone pattern covers a large range that can be beneficial to students seeking to improve their sound in multiple registers. For a younger student, transposing octaves to a comfortable range suited to their current skill level is encouraged. The second exercise is a variation on lip slur number four from the first section in

Bai Lin's book titled *Lip Flexibilities for all brass instruments*.³² The lip slur is presented starting on C and F to facilitate both the CC and F tubas. The next two exercises, "Dr. Jekyll and Mr. Hyde" and "Sound," have a weekly key rotation (Figure 6.1). These two exercises are designed to be played once on the CC tuba and once on the F tuba. "Dr. Jekyll and Mr. Hyde" will improve a student's skill of centering notes on both tubas, and "Sound" will improve a student's evenness of sound at multiple dynamic levels on both tubas.

Key Rotation-Dr. Jekyll and Mr. Hyde	Key Rotation-Sound
One on CC, one on F	One on CC, one on F
Monday F/Bb Tuesday Eb/Ab Wednesday Db/Gb Thursday B/E Friday A/D Saturday G/C Sunday Any Minor Key	Monday B/E Tuesday A/D Wednesday G/C Thursday Any Minor Key Friday F/Bb Saturday Eb/Ab Sunday Db/Gb

Figure 6.1: Key Rotation for "Dr. Jekyll and Mr. Hyde" and "Sound"

The fifth exercise, titled "Tonguing," has the student use the F tuba on even days and the CC tuba on odd days. As mentioned by the respondents, the CC tuba has a slower response time than the F tuba due to the acoustical nature of the instrument. This exercise can be used to facilitate a clear and resonant articulation on both tubas. The next exercise, "Bob and Weave," is from Chris Olka's YouTube series called *Drill of the Week*. This exercise is drill fourteen from Olka's series. The student has the option to pick which tuba they would like to play this exercise on. Many survey respondents wrote that it is essential to focus on low-range fundamentals when starting on the bass tuba. Since "Bob and Weave" is a low-register flexibility study, this exercise can be used to address the needs of students who are starting their study on the bass tuba. The final exercise is a variation on "Shwarma" from Sam Pilafian and Patrick Sheridan's *The Brass Gym.*³³ This exercise should be played on the CC tuba and is intended to relieve any tension from the previous exercises in this routine.

50

³² Bai Lin, Lip Flexibilities for All Brass Instruments (Paoli, Pennsylvania: Carl Fischer, 1996), 8.

³³ Pilafian and Sheridan, *The Brass Gym*, 25.

Beyond the daily cross-training routine presented in this document and the future etude book, the author hopes that the information and data gathered by this study will help serve current and future tuba students and teachers. Additionally, the author would like to thank all the survey participants for their invaluable information and knowledge. The amount of interest in this project from the tuba community has been heartwarming, making this project and all future projects worthwhile endeavors.

APPENDIX A

MUSICAL EXAMPLES OF A POTENTIAL ETUDE BOOK



2

2

3

4

5

5

Switch Tubas

II A Minor

Jesse R. McConnell



APPENDIX B

EXAMPLE OF A CROSS-TRAINING DAILY ROUTINE

Cross-Training Daily Routine

Jesse McConnell "Cross Fit Long Tones" CC Tuba F Tuba



APPENDIX C

SAMPLE SURVEY

Survey for "Simultaneously Teaching the Bass Tuba and Contrabass Tuba: Methods, Teaching Philosophies, And Current Trends in College and University Studios in the United States" conducted by Jesse McConnell M.M. at Florida State University.

Bass Tuba Survey Questions:

When do you typically introduce the bass tuba to students and why?

What *Solos* do you assign to a student starting out on bass tuba?

What *Orchestral or Band excerpts* do you assign to a student starting out on bass tuba?

What *Etudes* do you assign to a student starting out on bass tuba?

What *Exercises/fundamentals* do you assign to a student starting out on bass tuba?

Do you have any *Other* assignments for a student starting out on bass tuba?

When do you encourage or require students to own their own bass tuba?

Do you have a preference on students playing F or Eb tuba, if any preference at all? If so, why?

Do you encourage education (or non-performance) majors to play bass tuba before they graduate? If so, why?

Contrabass Tuba Survey Questions: (For students moving from BB-flat to CC tuba in college)

When do you typically introduce the CC contrabass tuba to students and why?

What *Solos* do you assign to a student starting out on CC contrabass tuba?

What *Orchestral or Band excerpts* do you assign to a student starting out on CC contrabass tuba?

What *Etudes* do you assign to a student starting out on CC Contrabass Tuba?

What *Exercises/fundamentals* do you assign to a student starting out on CC contrabass tuba?

Do you have any *Other* assignments for a student starting out on CC contrabass tuba?

When do you encourage or require students to own their own contrabass tuba?

Do you encourage education (or non-performance) majors to play CC before they graduate? If so, why?

Studio Teaching: (For students playing both bass & contrabass tubas)

Do you encourage or require students to bring both bass and contrabass tubas to lessons? Or do you prefer to teach separate lessons for both? Why?

Do you observe/hear students on both tubas weekly?

Do you encourage or require students to perform in recitals/studio class/departmentals on both bass and contrabass tubas throughout the course of a semester?

Teaching Philosophies:

Do you have different concepts of sound for the bass and contrabass tubas? If so, what are those differences?

Do you have any fundamental approaches to a concept that differ between bass and contrabass tubas? If so, what are those differences?

Do you encourage or require students to complete their daily fundamentals/routine on both contrabass and bass tubas? Why?

How would you recommend students split their time between both contrabass and bass tubas? Should one tuba get more practice time than the other?

Do you have any other insights about teaching both tubas that was not covered by this survey?

APPENDIX D

IRB APPROVAL

FLORIDA STATE UNIVERSITY OFFICE of the VICE PRESIDENT for RESEARCH



EXEMPTION DETERMINATION

January 6, 2021

Jesse McConnell,

Dear Jesse McConnell:

On 1/6/2021, the IRB staff reviewed the following submission:

Exempt
(2)(ii) Tests, surveys, interviews, or observation (low risk)
Simultaneously Teaching the Bass Tuba and Contrabass
Tuba: Methods, Teaching Philosophies, and Current Trends
in College and University Studios in the United States
Jesse McConnell
STUDY00001530
STUDY00001530
None
None
None
citiCompletionReport9247986.pdf, Category: Other; citiCompletionReport9247986(1).pdf, Category: Other; hrp-503a, Category: IRB Protocol; information-sheet, Category: IRB Protocol;

The IRB staff determined the protocol qualifies for exemption, effective on 1/6/2021. Your study conforms to FSU policy on COVID-19-related requirements and restrictions related to research activities that involve in-person interventions or interactions with human research participants.

Note that once the COVID-19-related requirements and restrictions are lifted and IF you plan to substitute remote interactions or interventions with in-person alternatives, or IF you plan to include as human subjects persons who were previously excluded due to their high risk for severe illness from COVID-19 or ages 65 or more years, please be sure to submit a modification to the IRB for its review of these substitutions. If however you only plan to discontinue other COVID-19-specific risk mitigation (e.g., social distancing, screening, use of PPE), then no study modification request need to be submitted to the IRB for review before these changes may be implemented. For all other study modifications, see notes below.

You are advised that any modification(s) to the protocol for this project that may alter this exemption determination must be reviewed and approved prior to implementation of the proposed modification(s).

Page 1 of 2

Modifications to the research may invalidate the exemption determination (because the research no longer meets the exemption criteria described in HRP-312 – WORKSHEET – Exemption Determination).

Examples of minor changes to exempt research that would *not* alter the exemption determination and <u>should therefore not</u> be submitted to the IRB for further review include the following:

- Making administrative (formatting, grammar, spelling) revisions to the protocol, consent or recruitment materials or other study documents
- Adding or revising non-sensitive questions or non-identifiable response options to a survey, interview, focus group or other data collection instrument
- Increasing or decreasing the number of study subjects—unless adding a new study sample such as children or prisoners or adding a new source of data or records
- Making study team/personnel changes—except a change in Principal Investigator (PI)

Examples of changes to exempt research that <u>do require</u> prospectively submitting a modification to the IRB before implementing changes include the following:

- Making substantive revisions or additions (e.g., change in PI; funding source; sample; source of study subjects or their data; study sites or settings; procedures, interventions or interactions with study subjects; use of any drug, device, supplement or biologic; study subjects' time or duration spent performing or participating in study activities) to the protocol, consent or recruitment materials or other study documents
- Adding or revising sensitive questions or identifiable response options to a survey, interview, focus group or other data collection instrument
- Adding a new study sample such as children or prisoners or adding a new source of data or records
- Obtaining, using, studying, analyzing, generating, storing or maintaining identifiable information or identifiable biospecimens in addition to or in lieu of de-identified or anonymous information or specimens
- Change in study risks (e.g., impact upon study subjects; impact upon students'
 opportunity to learn educational content or assessment of educators who provide
 instruction; any disclosure of study subjects' responses outside of the research may
 place study subjects at risk of criminal or civil liability or be damaging to subjects'
 financial standing, employability, educational advancement or reputation)
- · Change in Principal Investigator (PI) or (for students) faculty advisor
- New or change in financial interest

In conducting this protocol, you are required to follow the applicable requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the Library within the RAMP IRB system.

Sincerely,

Office for Human Subjects Protection (OHSP) Florida State University Office of Research 2010 Levy Avenue, Building B Suite 276 Tallahassee, FL 32306-2742

Phone: 850-644-7900

OHSP Group Email: humansubjects@fsu.edu
OHSP Web: https://www.research.fsu.edu/hs

Page 2 of 2

APPENDIX E

IRB APPROVAL FOR MODIFICATION

FLORIDA STATE UNIVERSITY OFFICE of the VICE PRESIDENT for RESEARCH



EXEMPTION DETERMINATION

January 20, 2021



Dear Jesse McConnell:

On 1/20/2021, the IRB staff reviewed the following submission:

Type of Review:	Exempt
	(2)(ii) Tests, surveys, interviews, or observation (low risk)
Title:	Simultaneously Teaching the Bass Tuba and Contrabass
	Tuba: Methods, Teaching Philosophies, and Current Trends
	in College and University Studios in the United States
Investigator:	Jesse McConnell
Submission ID:	MOD00001020
Study ID:	STUDY00001530
Funding:	None
Grant ID:	None
IND, IDE, or HDE:	None
Documents Reviewed:	Information Sheet-STUDY00001530.pdf, Category:
	Consent Form;

The IRB staff determined the protocol remains qualified for exemption, effective on 1/20/2021.

You are advised that any modification(s) to the protocol for this project that may alter this exemption determination must be reviewed and approved prior to implementation of the proposed modification(s).

Modifications to the research may invalidate the exemption determination (because the research no longer meets the exemption criteria described in HRP-312 – WORK SHEET – Exemption Determination).

Examples of minor changes to exempt research that would *not* alter the exemption determination and <u>should therefore not</u> be submitted to the IRB for further review include the following:

- Making administrative (formatting, grammar, spelling) revisions to the protocol, consent or recruitment materials or other study documents
- Adding or revising non-sensitive questions or non-identifiable response options to a survey, interview, focus group or other data collection instrument
- Increasing or decreasing the number of study subjects—unless adding a new study sample such as children or prisoners or adding a new source of data or records
- Making study team/personnel changes—except a change in Principal Investigator (PI)

Examples of changes to exempt research that <u>do require</u> prospectively submitting a modification to the IRB before implementing changes include the following:

- Making substantive revisions or additions (e.g., change in PI; funding source; sample; source of study subjects or their data; study sites or settings; procedures, interventions or interactions with study subjects; use of any drug, device, supplement or biologic; study subjects' time or duration spent performing or participating in study activities) to the protocol, consent or recruitment materials or other study documents
- Adding or revising sensitive questions or identifiable response options to a survey, interview, focus group or other data collection instrument
- Adding a new study sample such as children or prisoners or adding a new source of data or records
- Obtaining, using, studying, analyzing, generating, storing or maintaining identifiable information or identifiable biospecimens in addition to or in lieu of de-identified or anonymous information or specimens
- Change in study risks (e.g., impact upon study subjects; impact upon students'
 opportunity to learn educational content or assessment of educators who provide
 instruction; any disclosure of study subjects' responses outside of the research may
 place study subjects at risk of criminal or civil liability or be damaging to subjects'
 financial standing, employability, educational advancement or reputation)
- · Change in Principal Investigator (PI) or (for students) faculty advisor
- New or change in financial interest

In conducting this protocol, you are required to follow the applicable requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the Library within the RAMP IRB system.

Sincerely,

Office for Human Subjects Protection (OHSP) Florida State University Office of Research 2010 Levy Avenue, Building B Suite 276 Tallahassee, FL 32306-2742

Phone: 850-644-7900

OHSP Group Email: humansubjects@fsu.edu
OHSP Web: https://www.research.fsu.edu/hs

BIBLIOGRAPHY

- Arban, Jean. Arban's Complete Conservatory Method. New York: Carl Fischer Music, 1893.
- Baer, Alan. Cross Training for Tuba and Tonic/Dominant Scales. North Brunswick, New Jersey: Baer Tracks Music, 2006.
- Baker, Jeffrey. "The Creation of a Performance Edition of Gustav Mahler's Lieder Und Gesänge Aus Der Jugendzeit And Its Role in Bass Tuba Pedagogy." D.M.A., University of North Texas, 2012. ProQuest Dissertations & Theses Global.
- Bevan, Clifford. The Tuba Family, 2nd ed. Winchester, Hampshire: Piccolo Press, 2000.
- Blazhevich, Vladislav. 70 Studies for BB-Flat Tuba. North Easton, Massachusetts: Robert King Music Company, 1970.
- Gregson, Edward. Tuba Concerto. London: Novello & Company Limited, 1978.
- ——. "Tuba Concerto (Orchestral Version) Edward Gregson." May 1, 2006. Accessed January 5, 2021. https://edwardgregson.com/works/tuba-concerto-orchestral-version/.
- Jacobs, Wesley, and Jerry Young. *Arban Complete Method for Tuba*. Maple City, Michigan: Encore Music Publishers, 2000.
- Jacobs, Wesley. The One Hundred. Maple City, Michigan: Encore Music Publishers, 2010.
- Kleinsteuber, Carl. "An Argument in Favor of the Saxhorn Basse (French Tuba) In the Modern Symphony Orchestra." D.M.A., University of North Texas, 2017. ProQuest Dissertations.
- Kopprasch, Georg. 60 Etudes for Low-Horn, Op. 6. Leipzig: Breitkopf und Härtel, 1833.
- Lin, Bai. Lip Flexibilities for all brass instruments. Paoli, Pennsylvania: Carl Fischer, 1996.
- Palton, George. "An Analysis and Performance Guide to the Tuba Music of Alice Gomez." D.M.A., University of Kentucky, 2008. ProQuest Dissertations & Theses Global.
- Pilafian, Sam, and Patrick Sheridan. The Brass Gym. Mesa, Arizona: Focus on Music, 2008.
- Randolph, David. "The Use of the F-tuba in the College Teaching Studio." *The T.U.B.A. Journal* 16, no. 3 (Spring 1989): 36-39.
- ------. "The use of the F-tuba in the College Teaching Studio." *The T.U.B.A. Journal* 16, no. 4 (Summer 1989): 25-27.

- -----. "The Use of the F-tuba in the College Teaching Studio." *The T.U.B.A. Journal* 17, no. 1 (Fall 1989): 18-20.
- Rochut, Joannes. Melodious Etudes for Trombone. New York: Carl Fischer Music, 1928.
- Mitchell, William Kenneth. "Teaching the Bass Tuba: A Survey of Current Trends in the College and University Applied Studio in the United States." D.M.A., University of North Texas, 2006. ProQuest Dissertations & Theses Global.
- Morris, R. Winston, and Edward R. Goldstein. *The Tuba Source Book*. Bloomington, Indiana: Indiana University Press, 1996.
- Zerkel, David. "Do You C What I C?" International Tuba Euphonium Association, Winter 2003. Accessed January 5, 2021. https://www.iteaonline.org/members/journal/30N2/30N2doyouC.php

BIOGRAPHICAL SKETCH

Name: Jesse R McConnell III

Date of Birth: September 8th, 1989

Place of Birth: Atlanta, Georgia USA

Education: Texas Tech University

Lubbock, Texas

Bachelor of Music in Music Education

Degree Awarded May 2014

University of North Texas

Denton, Texas

Master of Music in Music Performance

Degree Awarded May 2017

Experience: Graduate Teaching Assistant, Florida State University

Tallahassee, Florida; August 2017-December 2018

Graduate Teaching Assistant, University of North Texas

Denton, Texas; August 2014-May 2017