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THE RABBATH METHOD: PHILOSOPHY AND TECHNIQUE IN CURRENT DOUBLE BASS PEDAGOGY

by

David G. Pellow

A Dissertation
Submitted to the Graduate School,
the College of Arts and Sciences
and the School of Music
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

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ABSTRACT

This study traced the lineage from François Rabbath through his first-generation apprentices to determine how the philosophies and techniques of the *Rabbath Method* are interpreted and applied by current double bass performers and pedagogues. Participants were identified for the study from a list of all current (N=46) diploma holders of the L'Institute International de Contrabasse François Rabbath (the Institute) made available to the researcher by the President of the *Institute*, François Rabbath. An e-mail request for study participation was sent to thirty-six performer/pedagogues trained by Rabbath and certified to teach and/or perform from the *Method* (Rabbathians), yielding twentyfour-responses. Quantitative data garnered from the researcher-designed Rabbath Method Practitioner Survey (RMPS) revealed a majority of Rabbathians display a diverse practice of music performance and pedagogy. A second collection of questions, the Rabbath Method Practitioner Questionnaire (RMPQ), designed to obtain qualitative data reflecting ways the philosophies and techniques contained in the *Method* are being disseminated and applied through the performance and pedagogy of current Rabbathians, was included. Data suggest that while most Rabbathians apply philosophies, techniques, and pedagogy from the *Method*, pedagogic terminology is not always used similarly. Responses to open-ended questions revealed how François Rabbath and current Rabbathians view assimilation of the *Method* into the public-school setting, and the role of improvisation in pedagogic and performance practice, an integral facet of the *Method*. Data from this study reflect some congruence in philosophy and application of the *Method* among first-generation Rabbathians.

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A lifetime of performing, teaching, and scholarship preceded this dissertation. To identify all who contributed to the arrival of this moment would be impossible.

Therefore, I will acknowledge the most obvious and the rest with appreciation, who know who they are.

I am grateful to Dr. Steven Taranto for the idea and especially grateful for the kind and thoughtful responses of the participants for this study. It is my hope that the information they generously provided may guide and inspire future teachers and performers.

Deep gratitude toward the advisory committee for guidance and mentorship through this journey: Dr. Nicholas Ciraldo, for his dedication to the Art of Music Making and for chairing the dissertation advisory committee; Dr. Marcos Machado, for the TAO of bass (that fixed my injured finger) and gifting me the imagination of his students; Dr. Mark Hugh Malone, for willing to step up (and stay) and share his passion for the written word; Dr. Mark Waymire for his dedication to music, music teachers, and the beauty of a child's mind expressed through music; and to Lawrence Panella, who gave me the closest feeling of playing with my father any tenor saxophonist yet has.

I have fond remembrances of my bass teachers including Tony Bianco (the Dragon), who shared with me the science and psychology of intervals and taught me how to hear myself, and Bob Leinenger (Big Bob, Tony's stand partner) who, with Joe 'Jazz' Wallace, were conduits to the experience of early twentieth century music practice, the musicians who made that music, and the daily life of a musician. Dr. John Wilson was a reliable mentor and model Artist/Educator who shared, for all, his love of the architecture of music and the poetry of harmony. Dr. Sam Bruton's skeptical yet musical approach to music philosophy made playing music with him to be more an expression of *why*, than just playing notes. I have great appreciation for Dr. Annabelle Joseph and Dr. Stephen Neely, who gave me Dalcroze Eurhythmics to illuminate the potential of movement in music, and for Dr. Amanda Schlegel, my guide through the forest of research literature who encouraged me to think out loud.

I must give profound thanks for being alive during the time of George Vance, whose vision made the double bass available to the imagination of children and who lives on as an inspiration and model for teaching excellence (kudos to Johnny Hamil, who continues to embody George's vision) and François Rabbath, whose greatest lesson was for us to love one another. Praise and credit goes to Frank Proto, Barry Green, and Paul Ellison for presenting Rabbath to the bass world and facilitating the early opportunities for us to witness him play and teach.

I am indebted to Catherine Pellow for designing the website for the research project and Dr. Nicholas Walker and Jason Heath from ISB for assistance in locating email addresses. I am thankful for Christine Berliner for always being willing to read, to James Armstrong for his love of music and musicians, and for Judy Bain who brought me to Mississippi.

I learned so much from John Hughes, a mediator who, through music, enabled peoples of diverse background to pass time together in the shared existence of societal life, and his Wife Helena, who prepared me for the deep South through a pot of gumbo. Loving gratitude for Diane Benton who shared with me her home and family while I was a thousand miles from my own. I also have warm appreciation for Nancy and Bill Seifert, founding member of the Birddog society, who exampled a reliable philosophy for having a good party: "hire a good band."

Finally, I gratefully acknowledge the many hundreds of musicians I have performed with, the many students who asked me to share, and all those who share with the world the gift of music through teaching and performing.

DEDICATION

"The Most Important Thing in the World is Family and Love" (John Wooden)

This Dissertation is dedicated to my Family:

First, to my parents from whom I received the gift of music. Dr. Rita B. Pellow, who taught me that knowledge is currency and James A. Pellow, who taught me to play is to work and to work is to play.

Second, to my children Amanda, Abigail, and Catherine whose love and belief in me is my lifeblood.

Third, to my siblings James, Michael, and Lisa who set a bar of excellence beyond reach. I only hope I might approach their pinnacle, for joy can be found in reaching for what is unattainable.

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CHAPTER I

Reflexive Narrative

In 1980, having played the double bass for three years, I met François Rabbath at the International Summer Bass School (ISBS) held at the Cincinnati College

Conservatory of Music (CCCM). My interactions with Rabbath continued in 1987 when I received a private lesson from him at his home in Paris, France. By 1990, I had earned two music degrees from Duquesne University and sustained a professional performance practice for thirteen years in my hometown of Pittsburgh, Pennsylvania. A teaching career began, first as an itinerant private bass instructor, then as an adjunct lecturer at a local university. At this point in time, possibly due to evolving issues that were impeding consistent artistic and pedagogic growth, questions as to my foundation as an instrumentalist and pedagogue developed. It was becoming apparent that, having not received initial training that might prevent physical and psychological pitfalls of playing the bass, I was developing playing-related pain and insecurity in teaching and performing.

Serendipitously in 1990, the co-founders of the ISBS, Barry Green, Paul Ellison, and Frank Proto hosted the International Rabbath Institute, bringing François Rabbath to the USA for an extended residency, again at CCCM, where bassists could study daily with him for two weeks. During the summers of 1990 and 1991, I attended the Rabbath Institute. After this period of study with Rabbath, issues that had hindered the growth of personal skills as a bassist and teacher began to remediate with resultant momentum for my performance and teaching practices.

Assimilating Rabbath's philosophy and pedagogy for playing and learning the bass I started, in a way, to play the bass again guided by what Rabbath had then developed into his *first steps* pedagogy as a foundation. Rabbath's pedagogy enabled remediation mostly, over time, of my initial approach as a bassist. After thirteen years of practicing from this initial approach, the *Rabbath Method* influenced a change in philosophy and pedagogy that was monumentally affecting my long-term outlook as a performer and pedagogue.

Through Rabbath's theory of dissociation, I would practice his concept of *son premier* with focus and intent for five minutes at a time and then resume playing without making any conscious changes to my developed technique. Rabbath's pedagogy accepts how the student plays. He has said, "one never forgets what one has learned, it is forever" (Sturm and Rabbath, 2011). The pedagogy suggests that, after sufficient practice of another perhaps more logical or efficient way of playing the bass, the player will likely choose the better way and abandon the other, mostly unconsciously.

Rabbath began to accept pupils to study with him at his home in Paris in the 1980s and by 1994 began to offer teaching and performance diplomas officialized through the *Conservatoire Municipal de Paris IX Nadia et Lili Boulanger*. I requested admission and was accepted as a pupil of Rabbath in Paris for the year 1995; however, my domestic life precluded following through on this opportunity and I continued to study the *Rabbath Method* on my own and, occasionally, with Rabbath in person.

A teacher training course in the *Rabbath Method* was established near Washington, DC by the American bassist/pedagogue George Vance. Vance was a pupil of my former teacher Anthony Bianco and had studied in Japan with Shinichi Suzuki,

founder of the *Suzuki Method*. In the mid-1980s, Vance was creating a method for young bassists based upon Suzuki repertoire. In the 1990s, Vance studied with Rabbath and began to offer an annual course in teacher training based upon his Suzuki-influenced pedagogy and Rabbath's philosophies and pedagogy. I continued to study as a participant at Vance's double bass summer camps in the 90s and in 2002–2003 completed the teaching course with Rabbath and Vance.

From the period of 1995-2009 I was appointed Double Bass Artist Lecturer and Director of Jazz Studies at Carnegie Mellon University (CMU). Continuing to study and teach from the *Rabbath Method* while administering the jazz program at CMU was a rich period of discovery and learning to play and teach from a philosophical basis. Recorded excerpts of my performances of repertoire from the *Method* were sent to Rabbath for feedback and his assessment was that I had established a level of understanding and a practice of the *Method* to warrant granting the *Teaching* and *Performance* diplomas of the *Institute*.

Meeting Rabbath might have been the most affecting moment of my life as a musician, bassist, and music educator. Continuing to perform and teach from the philosophical and pedagogical foundation received from Rabbath has kept me looking forward to improving as a player and teacher. In reflecting on my personal journey, I began to ask questions as to what it means to be a *Rabbathian*. As I did not study for a contiguous year but studied on my own and on many shorter occasions with François Rabbath for 36 years, was I a Rabbathian? What philosophies and pedagogy do those who have studied closely with Rabbath choose in their teaching and performance practices? How is the pedagogy of Rabbathians shaped by their study with Rabbath?

What are the most important philosophical tenets of the *Rabbath Method* as evidenced by my practice and that of Rabbathians?

Answering these questions may provide information to deepen double bass performance and pedagogy for myself, my students, and the music education profession. The aim of this research is that through the current inquiry, future students and pedagogues might gain useful knowledge for how to study and apply the philosophy, technique, and pedagogy of the *Nouvelle Technique de la Contrabasse* for playing the double bass, and more broadly, for music education. The study also offers close attention to philosophy as a foundation, an important focus, that to this point in music education practices may not receive consistent, contemplative, or continual consideration.

According to Randall Allsup:

Unfortunately, while the field of philosophy has helped to inform the practice of teacher education writ-large, an articulated philosophical rationale for large performing groups that goes beyond the profession's utilitarian functionalism is missing from the music education community. (Allsup, 2010, p. 59)

A better articulated philosophical rationale might be "uniquely situated to explore the confluence of ideas surrounding music, education, and culture and breathe life and energy into hard questions of multi-cultural and intercultural matters of music education" (Campbell, in Shippers, 2010, p. vii). If Allsup's assumption is evidenced positively in practice then perhaps inquiries into divergent philosophies for playing, performing, and teaching music will inform a more articulated, inclusive, and broadly shared philosophy for music education in the future. Answers to the hard questions that arise from teaching

music could help music educators achieve unity in their purpose and agree more on why, than what and how (Waymire, 2011).

François Rabbath: Background

When I teach, I must be careful about every word. François Rabbath (2005).

François Rabbath is considered by many to be one of the most important double bassists in the history of music and a unique artist of exceptional merit (Greenberg, 1999). Rabbath's career as a musician now spans nearly seventy-five years. As a recording artist, he was, in the early sixties, a pioneer in the use of new recording technologies. The recording, *BassBall*, produced during that time, was unique as "it is the first long-play recording of solo double bass and percussion, the first in stereo, and the first to employ "playback multi-tracking" (Greenberg, 1999, p. 21). Rabbath is responsible for the addition of a significant body of literature for the double bass including his normalization of the suites for violoncello by Bach, at original pitch. Compositions for the double bass include 38 etudes, 5 concert etudes, 22 pieces for solo double bass, and 13 concert pieces with various accompaniment. Collaboration with contemporary American composer Frank Proto brought forth important new works for the bass and orchestra (Greenberg, 1999; Machado, 2005). Rabbath's contribution to further developing the musical possibilities for the double bass appears significant:

Rabbath may be one of the most important virtuosos in the history of the instrument and his techniques have reshaped the landscape of the double bass world. His innate sense of phrasing enables him to go beyond the limits of the instrument. (Machado, 2005, p. 1)

As a pedagogue, Rabbath has written a treatise on playing the double bass currently in five volumes (Rabbath, 1977–2016). The *Nouvelle Technique de la Contrabasse* (NTdlC) has been disseminated globally and mainstreamed in bass pedagogy during Rabbath's lifetime. A prominent pedagogue and teacher, François Rabbath has trained bass pedagogues and performers, "many of whom are reputable professors" (Greenberg, 1999, p. 60). Rabbath was granted the Isaac Stern Lifetime Achievement Award for string teaching from the American String Teachers Association (ASTA) in 2006. ASTA notes Rabbath as "... double bass virtuoso and master pedagogue" (Fanelli, 2008, p. 30). The evolution of the NTdlC was captured in detailed video recordings (Sturm and Rabbath, 2005; 2011). For more than four decades, Rabbath has travelled the world cultivating and nurturing a bass "family" and as patriarch of this family, Rabbath teaches in the way a caring parent might:

I want to say for the future, for all the musicians, not just the bass player, Love the rest of the people, don't stay alone. Don't be jealous. You must know that you are unique, definitely. You must know that you must not compete with somebody else. Compete with yourself. Be better than yourself. (Sturm and Rabbath, 2011)

Theories developed in the NTdlC for playing and learning the string bass have been accepted and assimilated in many regions of the world (Greenberg, 1999, p.56–73). Rabbath has invited pupils to study with him at his home in Paris and he travels broadly to teach his method to children and adults as well. In 2016, (at 85 years old), he toured North America presenting workshops and performances in Austin, Kansas City, Minneapolis, Washington, DC, USA, and Quebec City, Canada.

What appears to set the NTdlC apart from typical manuals written by 19th and early 20th century pedagogues is that it contains techniques and pedagogy based upon scientific and philosophical knowledge of the 20th and 21st centuries. Rabbath considers fields of inquiry such as modern psychology, learning theory, and physiology. Technologies, in the form of aural recordings, videos, computer-based CDROMs, and bio-mechanical animations of Rabbath's performance technique are integral components of the method. That Rabbath has documented the techniques, pedagogy, and philosophies in detailed writings and through audio-visual presentations gives the researcher a basis for observing how his techniques and philosophies for playing and teaching the bass may be currently disseminated in pedagogy and performance.

Rabbathian philosophies address not only physical laws and psychological issues of playing the double bass but also learning and teaching music in general. Rabbath wrote an extensive overview of his techniques, pedagogy, and philosophical bases in the introduction of the third volume of his treatise (Rabbath, 1984). A detailed explanation of the philosophical, physical, and psychological aspects of playing the double bass is unique to most methods for musical instruments and, until 1984, virtually all for the bass. The late Samuel Cross (1939–2018), recent professor of double bass at James Madison University, recognized that "while any part of Mr. Rabbath's technique has appeared in some form before, the organization, thoroughness, and *philosophical basis* make it truly a new technique" (Greenberg, 1999, p. 55).

Methods for Double Bass: Historical Background and Considerations for Current Application

This section may be best served if brief consideration is given to the definition of "music learning method" and its motivations. When assessing the efficacy of an applied method for learning a musical instrument, the question may arise: from where has the author's knowledge been developed? In the context of this question, a clear definition of music instructional method is useful. According to the *Encyclopedia of the Sciences of Learning* (Seel, 2012):

Given the multi-faceted nature of music and learning, research in this area is directly linked to music studies in cognitive psychology, developmental psychology, social psychology, educational psychology, and philosophy. Music instructional methods are pedagogies and approaches used in teaching music, based on theories of teaching and learning that have been developed through research. Each particular method has its own identifiable philosophy and unique instructional process. In addition, some methods utilize specialized materials or instruments. (p. 2405)

The definition presented suggests that if there are clear philosophies and processes based in a learning method, the researcher may observe efficacy of the method in the applied studio and further assess the effectiveness of its application in real-world circumstances. "Efficacy and effectiveness exist on a continuum" (Gartlehner, Hansen, Nissman, et al., 2006, introduction). If this is so, it appears crucial to identify and apply the philosophies and processes of a method in the studio which might enable the student to effectively apply them in a broad range of performance environments.

In the 20th century the method book for double bass instruction most preferred in colleges and conservatories in the United States was Franz Simandl's *New Method for Double Bass* (Leavit, 1997). According to Leavit, "A method book takes the student from the first stage of playing to an advanced level" (p. 21). Leavit's study showed the Rabbath method was rated second, behind the Simandl, out of seven major double bass methods identified by bass pedagogues in America. Other prominent methods for double bass identified as preferred by participants in Leavit's study include: Nanny (42), Billé (25), and Vance (16).

Simandl's method book first was published in 1881 and in the preface to the method he states:

Although methods for Double Bass which have appeared in print up to the present time have not been lacking in many good qualities, I have come to the conclusion that the majority are either not complete enough, or too complicated for general understanding to supply the student with a thorough education on this particular instrument in an easy and practical manner and in accordance to present-day requirements. (Simandl, 1904, p. 3)

Present day, in this context, refers to the end of the 19th century; however, in 2018, a more broad-based approach may be needed. Since Simandl's death in 1912, new musical genres in double bass performance and pedagogy have developed. For example, as of 1900, the role of the double bass had not yet been specified for Jazz (Goldsby, 2002). Other examples of performance areas not yet considered in traditional double bass methods include audio and video recording, rock music, film music, electro-acoustic, and computer-based music.

A first-hand account of techniques and philosophies from Simandl is impossible, as is an account of experiencing Simandl's teaching for, although the list of living bass pedagogues who studied from the Simandl method book is long, the list of living pedagogues who studied with Simandl is vacant. The last double bass pedagogue to have studied directly with Simandl was Václav Jiskra (The Prague School, 2008) (see figure 1).

The Prague School Václav House (Wenzel Hause) 1764-1847 Prague Conservatory 1811-45 Josef Hrabe Antonín Sláma František Gregora 1816-1870 1804-1881 1819-1887 (Vienna) Vendelín Sládek František Simandl Emanuel Storch Gustav Laska Josef Rambousek 1851-1901 1840-1912 1841-1877 1847-1928 1845-1901 (Vienna) (Leipzig) (Schwerin) (Moscow) Serge Koussevitsky 1874-1951 Theodore Albin Oswald Schwabe František Cerný 1846-1909 1861-1940 1881-1936 (Leipzig) Dmitri Shmuklovsky František Hertl Eduard Madensky 1877-1923 Milt Hinton Oldrich Šorejs 1891-1953 Ludwig Streicher 1920-Johann Krump 1889-1952 Josef Niederhammer 1954-Max Dauthage Otto Rühm ca1920-Jirí Hudec 1862-1937 Zubin Mehta Rudolf Tulácek Hermann Ludwig Manoly 1855-1932 Frederick Zimmermann 1906-1967 1885-1954 Reinshagen (Bmo) (New York) Alois Kriz Joseph Guastafeste Gary Karr Orin O'Brien Václav Jískra Donald Palma Miloslav Gajdoš 1881-1962 Jesse Teiko David Walter (Chicago) 1948-Greg Sarchet Josef Houdek Peter Zaluba 1881-1944 (Chicago)

Figure 1. Death date of last remaining pupil of Simandl, Václav Jiskra, 1881–1962:

It is possible that the philosophies and pedagogy created by Simandl might not have endured entirely making a complete, accurate description, and application of the method, *according to* Simandl or any of his students, elusive for practitioners and researchers.

François Rabbath mastered the traditional way to play the bass first as described by Simandl, Nanny, Billé, and others. After, when faced with problems the traditional methods could not solve, he created new technical solutions (Greenberg, 1999). Such an example might prompt some bass performer/pedagogues to turn away from traditional double bass performance and pedagogy; yet Rabbath explains the value of traditional double bass methods through the lens of his teaching and guards against such an attitude:

They always come to me, and they begin to do my technique. And they found out it allowed them to do very many things easier. And they say, 'oh, the other way, it's bad'. I say, 'be careful'. I used the first way. But I was not stupid to throw it away because you need it one day. (Sturm and Rabbath, 2011)

Rabbath appears to have developed an approach for learning the bass that encourages exploring all possibilities for musical and technical solutions. He expresses this philosophy in the aphorism, "the more you have, the more you are rich" (chapter 9). This philosophy in pedagogic action is exampled by the inclusion of a taxonomy of left-hand fingering patterns for scales from the third volume of the method. The taxonomy identifies up to 130 different fingering patterns for three-octave scales in each major and minor key on the double bass; however, the approach for learning to play found in the NTdlC points toward fields of inquiry beyond the technical aspects of playing the double bass.

Playing instruments and singing brings forth phenomena of physics, physiology, and psychology that must be considered in an approach to learning to produce sounds that accurately express the innate meanings in Music. Although various violin pedagogues have written regarding performance issues such as stage fright (Havas, 1973), the role of the musculature in action (Rolland, 1986), and challenges faced as a performing artist (Menuhin, 1986), similar discussion for the double bass, including philosophical tenets for guiding performance and pedagogy, is rare. The NTdlC proposes fundamental philosophical, psychological, and physical differences from existing bass methods (Greenberg, 1999).

A Physical and Psychological Approach to the Double Bass

The double bass is the largest of the stringed instruments and presents physical aspects that must be considered in performance and pedagogy. That the student may spend more time alone with the instrument than with the teacher should give pause to consider psychological aspects of learning and performance. A detailed approach to the physical and psychological aspects of learning the double bass set the Rabbath approach apart from most, if not all, instructional books written throughout the history of the instrument. The forward to volume three of the NTdlC is titled *A Physical and Psychological Approach to the Double Bass* (Rabbath, 1984).

Rabbath's method includes fundamental principles of sound production, physical movement, and psychological conditioning for teaching and playing the double bass.

Inclusion of underlying philosophical and reflective tenets for teaching and playing goes beyond the technical and musical specificity found in traditional double bass methods. In the applied studio, the clinical efficacy of traditional double bass methods is for training

bassists to play in the orchestral setting of the 18th and 19th centuries. To approach the instruction of an instrument from the students' learning potential is quite another challenge.

That a child chooses a musical instrument for study from a fascination with music in general, and with the specific instrument in question, suggests a method of instruction might be employed that takes into consideration those psychological aspects that attract and retain a student. In the forward to volume III of the NTdlC (1984), François Rabbath establishes his view, at that time, of the deficiencies of existing methods and attitudes for learning the bass:

Traditional methods with their limits and taboos do not give double bass players the means to develop to their utmost capacity. Exercises, scales, and musical phrases are set which students often reproduce mechanically. This deprives them of self-awareness, of individuality, of the ability to make decisions, of inquisitiveness; it means they become mere machines. (p. VIII)

The limits and taboos to which Rabbath refers are the specific requirements and constraints for playing string bass in the classical orchestral setting. It can be pointed out that François Rabbath is a professional orchestral performer, having played in the orchestra of the Paris Opera for nearly 20 years and further, a jazz bassist, improviser, composer, and pedagogue (Fanelli, 2008). Rabbath's philosophy suggests that, through inquisitiveness and self-awareness, personal character traits and skills might be developed to enable the bassist to play a wide variety of music, including their own, with intent and a conviction born of taking an ownership of their *musicing*.

Pedagogic and Philosophical Ramifications for Music Education

In Music Education, an approach that includes all forms of music making "involve(s) a multi-dimensional form of thinking that is also a unique source of one of the most important kinds of knowledge human beings can gain" (Elliott, 1995, p. 33). David Elliott is a Canadian musician and Music Education scholar and whose *praxial* philosophy of Music Education states:

The primary values of music education are the primary values of *MUSIC*: self-growth, self-knowledge, and optimal experience. Music education is a unique and major source of one of the most important kinds of knowledge human beings can attain: self-knowledge. (p.129)

Elliott uses the term *musicing* as the activity of musicers, which describes a philosophy for becoming a musician and for teaching musicians. *Musicing*, according to Elliott, "in the sense of musical performing is a particular form of intentional human action" (p. 50).

The philosophy assumes that musical training will involve a multi-faceted experience and not be confined to one area of activity but present a myriad of activities that can lead to the knowledge of the self and of others:

Elliott uses musical 'doing' and 'musicing' inclusively, meaning 'all five forms of music-making: performing, improvising, composing, arranging, and conducting' which, he says, 'may also include moving, dancing, worshipping, and so forth depending on the musical style-community involved'. In addition, Elliott emphasizes strongly that music always includes 'another kind of doing' called music listening . . . 'The kind of doing we call music listening is therefore an essential thread that binds

musicers, musicing, and musical products together'. (Silverman, Davis & Elliott, 2014)

A curriculum based on the *praxial* philosophy for the bass or any manifestation of *musicing* therefore, may train the *musicer* to develop the self-awareness, individuality, ability to make decisions, and inquisitiveness that, according to Rabbath, is deprived in traditional methods.

The 21st century bassist might be most successful and marketable as a performer and/or pedagogue if trained in a broad range of diverse musical settings. As such, a broader skillset may be required to enable a musician to instinctively apply theoretical knowledge, self-interpretation, compositional techniques, and improvisation, not only in rehearsal but in the moment of performance. It could be stated that at the present time, bassists should be prepared to play a wide range of musical styles, make cogent solo statements in these environments, and develop the ability to improvise freely and collectively.

In typical musical settings, the musician may need an ability to produce the sound of what is heard in the player's mind, instantly, in the moment of playing alone or within collective genre specific styles including jazz, rock, or baroque, and non-genre specific improvisational settings as well. Improvisation is an important component of Rabbath's performances, compositional method, and pedagogy and in group classes, each student is encouraged to improvise from a drone. For the pedagogue, such extemporaneous creativity might reveal various parts of the students' skillset and further reveal a musical personality.

Recent innovations in technology make it necessary for musicians to consider the effects of non-traditional environments on technical and musical decisions. Playing in the recording studio and electro-acoustic environments may require a re-thinking of traditional techniques, including appropriate sound, so as to develop a sonic palette for creating diverse sound colors in creative application. Technical philosophy for the bass is put into action through cultivation of a bowing technique that can produce a variety of sound colors from the "palette sonor" (Sturm and Rabbath, 2005), valuable for realizing creative musical interpretation in diverse settings. From this view, the current double bass teacher might consider a pedagogy that preserves, stimulates, and develops a student's musical imagination and establishes technical and philosophical bases for success and enjoyment of playing the bass.

David Elliott's philosophy of Music Education highlights the importance of defining a clear iteration of the expert pedagogue whose role is to train future musicians and teachers. Examining the pedagogic practice and philosophical bases of master musicers like Rabbath may enhance the knowledge of what it is and how it is to become a master teacher. Paul Berliner provides justification for why: "If we ever do establish genuine teacher education laboratories, the exemplary performance of expert pedagogues will provide extremely useful case material for analysis by novices (Berliner, 1986, pp. 6-7). Berliner's statement suggests researching the pedagogy and performance of master performer/pedagogues could provide useful information for pre-service instrumental music teachers who one day would be in a position to teach, for instance, in a public-school string program.

How pedagogic information is passed through generations of practitioners of a particular music method might illuminate how the philosophies inherent therein are being maintained and disseminated. Observing the application of philosophy and technique, especially by direct descendants from the originator, may give insight into how and why the intentions of the author are applied in the field, possibly discovering the ontology of what the model practitioner for any method is, in this case, the Rabbath method for double bass.

Research Problem Statement

When the genesis of a method, its originators, and initial followers are not available to communicate foundational components, philosophical tenets, and practices, accuracy of initial intents as well as the method's evolution may become elusive. "Tracing pedagogical lineages demonstrates how knowledge is passed down from teachers to future generations of students, and how the ideals and philosophies of teachers are made manifest in the lives and work of their students" (Taranto, 2010, p. v). In regard to a specific area of study, Zeller (2009) states, "In the world of ballet, lineage matters" (p. 57). Within the field of instrumental music performance and pedagogy the particularities of an individual's performance and practice are often shared among and between members of a sub-group that is unequivocally linked to an originator. Taranto's research was conducted seventy-five years after the lifetime of his subject, Carl Orff (Taranto, 2010, p.6). In the case of François Rabbath, there is an exciting opportunity to begin, in his lifetime, assessing the lineage and dissemination of Rabbath's pedagogical method through data collected from the artist/teacher and his apprentices. Additionally, the ability to gather new information from Rabbath himself is important to further clarify

salient aspects, to reveal current developments, and to assess broader dissemination of the method in the field.

Purpose of The Study

The study seeks to identify the current state of the NTdlC from the performance and pedagogic lens of those who have studied directly with Rabbath (*Rabbathians*) and from Rabbath himself. Information gathered from this study may identify the most concise iteration of a Rabbathian and reveal how techniques and philosophies of the NTdlC are applied in performance and pedagogy for the benefit of future performers, pedagogues, and researchers of the double bass. Research results may offer considerations as to how methods are developed to achieve effective performance in a wide variety of instrumental fields.

Research Questions

Primary Research Questions

- 1. What is the most concise and clear iteration of the Rabbath method for teaching the bass, according to Rabbathians?
- 2. What is the most concise iteration of Rabbath's *philosophies* in performance and pedagogy, according to Rabbathians?
- 3. How is the Rabbath method currently applied in the field by first-generation Rabbathians?

Secondary Research Questions

1. How do Rabbathians view application of the method in Public School music programs?

2. How do Rabbathians view the role of improvisation in performance and pedagogic practice of the method?

Definitions

The Rabbath Method For the current study, the Rabbath

Method Includes all of the following:

The five volume Nouvelle Technique

de la Contrabasse (NTdlC), The Art of

DVD series, and *François Rabbath*:

The New Technique on CD-ROM.

A Physical and Psychological

Approach to the Double Bass

Explication of the philosophies and

theories found in the *Method*. The

introduction to volume three of the

NTdlC.

the *Institute* L'Institute International de la

Contrabasse.

Rabbathians Those who have studied directly with

Rabbath and/or those who are

practitioners of his method.

First Steps Pedagogy for the double bass beginner.

Where the physical laws are

introduced. The philosophy is,

everything must be perfect; the student

will learn no other way than the correct

way.

Son premier

le Son Premier. The first sound one should learn to produce. The pedagogy Rabbath created for teaching the first sound.

Palette sonore

The *sound palette*. How manipulating the physical properties of bowing (Contact point, Speed, and Weight) allows the player to create *tonal color*, "like a painter."

Movement, Space and Time (MST)

MST explains, mostly, the physical aspect of playing the bass for the left hand and arm. According to Rabbath: "finding a note on the instrument is an outcome of movement through space and time." MST is applied in bowing as well.

Dissociation

The "uncoupling of gestures." Isolating components of complete gestures in combined bowing (right arm) and fingering (left arm); so as to perfect the component in isolation and re-enter it to the complete gesture.

Biomechanics

Biomechanics is the science of movement of a living body, including how muscles, bones, tendons, and ligaments work together

to produce movement. It is both a basic and applied science, encompassing research and practical use of its findings.

CHAPTER II - LITERATURE REVIEW

Purpose of the Review

In order to thoughtfully and thoroughly analyze the NTdlC, its lineage, and application by current day Rabbathians, detailed study of related areas suggested therein may help frame technical and pedagogic philosophies contained in the *Rabbath Method*. Related areas of inquiry that emerge from Rabbath's *A Physical and Psychological Approach to the Double Bass* include: education philosophy, music education philosophy, music learning theory, philosophy of psychology, best practice in teaching, biomechanics and ergonomics of stringed instrumental performance, applied music research, and pre-existing string methods. Careful consideration of Rabbath's approach to learning the double bass may inform the current study as to the extent of inquiry a performer/pedagogue might conduct in developing theories of philosophy, technique, and pedagogy for learning to play and teach musical instruments.

Educational Philosophy

Johanne Heinrich Pestalozzi (1746–1827) was a Swiss educational philosopher, researcher, and practitioner whose method influenced education in Europe and the Americas. His concern was for education to be identified and subsequently utilized as a means to provide dignity and self-respect to the people (Mark, 2007). Pestalozzian pedagogy places importance on the child's position in the teacher/student relationship and provides a holistic approach to the pedagogy of teaching:

Pestalozzi believed that education should develop the powers of 'Head, Heart, and Hands', as these would help create individuals who are capable of knowing what is right and what is wrong and of acting according to this knowledge. Pestalozzi saw teaching as a subject worth of studying; he is known as the father of pedagogy (the method and practice of teaching, especially as an academic subject or theoretical concept). His influence, as well as his relevance to education today, is clear in the importance now put on many of his educational theories including a child-centred rather than a teacher-centred approach to learning. (pestalozzi.org, 2017)

Pestolozzian philosophy promotes preservation and development of the child's personality. That, rather than crush his personality, the teacher should nurture all aspects of the students' physical and intellectual being. Pestolozzi imagined the potential of revealing and developing a child's personality and critical thinking through teaching. Keith Swanwick comments on such an approach in music teaching: "The great virtue of the 'child-centred' theory of music education, stressing as it does the individuality and creativity of each child, is that we are encouraged to look and listen more carefully to what students actually *do*" (Swanwick, 2003, pp. 15-16).

The American philosopher John Dewey was a pragmatist and wrote extensively on education, pedagogy, and child development. Dewey expressed concern for the conflicts between the child and curriculum and, further, the conflicts between the experiences and interests of the child and the discipline of the subject matter (Dewey, 1902). The subject matter, too often in education, tends to "ignore and minimize the child's individual peculiarities, whims, and experiences" (p. 12). Dewey was alarmed by many of the child-centered excesses of educational/school pedagogues who claimed to be his followers and argued that "too much reliance on the child could be equally detrimental to the learning process" (p. 13). He reconciles this conflict thusly: "Literally,

we must take our stand with the child and our departure from him. It is he and not the subject-matter which determines both quality and quantity of learning" (p. 14). Dewey's concept of education places paramount importance on the psychological aspect of pedagogy:

Education, therefore, must begin with a psychological insight into the child's capacities, interests, and habits. It must be controlled at every point by reference to these same considerations. These powers, interests and habits must be continually interpreted—we must know what they mean. (Dewey, 1897, p. 78)

Dewey recommends the teacher consider curricula that are fit to the student's condition rather than a set plan of lessons: fixed, ready-made, and outside the child's experience; the teacher must see it as something fluent, embryonic, and vital, and realize further that "the child and the curriculum are simply two limits which define a single process" (Dewey, 1902, pp. 15).

According to Dewey, the experiential aspect of learning may be reflected in the physical nature of the child's interaction with the natural world in which they exist—an outward view:

As yet it is the pioneer in education who realizes the extent to which young children learn through the use of their bodies, and the impossibility of insuring general intelligence through a system which does not use the body to teach the mind and the mind to teach the body. (Dewey and Dewey, 1915, p. 357)

The psychological and physical nature of education is not new. The Greeks believed as such: "Those who want to be virtuous must train their bodies with exercises and their minds with discourses" (Cribiore, 2005, p. 128). A pedagogy in which the *integration* of both is a basis, might have been new for Dewey's time. Dewey reflects on the conflict of philosophy of mind and body:

The distinction between sense training and object lessons and laboratory exercises, and pure ideas contained in books, and appropriated—so it is thought—by some miraculous output of mental energy, is a fair expression of this distinction. (Dewey, 1916, pp. 320–322)

Here Dewey identifies a prevailing attitude of physical and psychological dualism inherent in traditional Western thought, the Cartesian separation of the mind and body.

Cartesian attitude reflects a kind of pedagogic dualism that uses traditional philosophy for those purposes to which Dewey seemingly objected. To set unquestionable standards - to fix the intellectual world - to make each generation assess itself by reference to an unchallenged standard that has been prescribed suggests placing a tyranny on a child's natural creative impulses. When subject is entirely the focus in teaching, the student's critical thinking may be stunted by a dogmatic attitude toward the "right answer." Though fact-based curricula may require the learning of undisputed fact, Dewey advocated for an educational structure that strikes a balance between "delivering knowledge while also taking into account the interests and experiences of the student" (Dewey, 1902, p. 16). Dewey's assertions suggest experiential learning justifies distinction and not separation of the psychological and physical aspects of learning.

Pestolozzi and Dewey appear to share the belief that nurturing and developing the individual through a *child-centred* approach to education, in which the physical and psychological nature of learning are integrated, may enable attainment of the full potential of that individual's skills and personality. The broader result of child centred education could be the realization of the potential of an entire culture. In 1958 Leon Mones expressed the ideals of music education in such terms:

The preservation of our Western culture demands human beings so excellently structured in personality that they will be able to sustain and advance the culture. This means people whose personalities involve not only relationships to the material, scientific, and pragmatic aspects and stimuli of our culture, but this demands people into whose personalities there have been built components of spiritual calmness, emotional assurance, and tender faith. These qualities can be built only by artistic experiences, and the responsibility lies with us, the teachers of music. (Mones, 1958, p. 77)

Further, Mones addresses the psychological ramifications of art education for maintaining a healthy society: "Psychologically, art may be said to be a socialized expression in symbolical terms of an individual's attempt at reconciliation with society" (p. 74). The statement suggests that learning through the arts could help a society develop and maintain norms that allow for a peaceful and cohabitated world. These assumptions might be idealistic; however, a method of learning which has at its core philosophic ideals, rightly applied through the pedagogy of the subject, deserves to be considered as authentic and an informed choice for the fullest development of the learner.

Pestalozzi, too, recognized the need for music education in development of, among other things, a peaceful and serene family life for children (Mark, 1982). Freidrich Froebel advocated music education (and other arts) as "a means of developing an understanding of the universe and man's place in it" (Mark, 1982, p. 15–21). From the lens of the music educator, the inclusion of music in education is critical to a well-rounded education. It appears John Dewey believed this as well:

If I don't spend a large amount of time in speaking of the music and art work, it is not because they are not considered valuable and important—certainly as much so as any other work done in the school, not only in the development of the child's moral and aesthetic nature, but also from a strictly intellectual point of view. I know of no work in the school that better develops the power of attention, the habit of observation and of consecutiveness, of seeing parts in relation to a whole. (Dewey, 1907, p. 64)

Nel Noddings (1929–) is an American feminist, educationalist, and philosopher best known for her work in philosophy of education, educational theory, and ethics of care. Noddings writes from the view that caring is an approach to moral life, of the caring relation, and of the state of consciousness of the one caring, and the risk of "falling into futile (and sometimes arrogant) patterns of do-goodism...:

Instead, in care theory we try to connect our own webs of care to those already established in other groups, cultures, and nations. We establish links or chains connecting circles of care and work cooperatively to keep open the lines of communication so that we retain some sense of whether

caring for is flourishing in each of the webs, we strive for empathic accuracy—understanding is essential—but we try to maintain sympathy even when we cannot condone or support what goes on in alien webs of care.

We try to educate sympathetically while remaining educable ourselves.

(Noddings, 2010, pp. 239–240)

The philosophy here suggests that the *one caring* (the teacher) must, ideally, possess an ethic of care for *the community* (students) that fosters deeper understanding of the meaning and healthy application of the *subject* (learning). That "we try to maintain sympathy even when we cannot condone or support what goes on...(p. 240)" might advise the teacher to develop a hesitancy to correct or call "wrong" a flawed or an incorrect answer before allowing the student to reflect toward another point of view (or, in the case of music, another type of sound or way of phrasing, and so forth). Noddings counters that only when the student has gained an understanding of a problem should the teacher then guide them toward another way of thinking/doing by comparing their solution to another solution.

Further, the teacher needs patience to allow the student to find the correct answer through the dynamic of the teacher/student relationship, "that to which both teacher and student contribute" (Noddings, 1995, p. 50). The student's process of discovery through reflection of error, enabled by teachers' willingness to allow mistakes, appears crucial to the learning process: "If we interrupt the student's inquiry at the outset by telling her, 'That's wrong; here is the right rule,' she may never understand why her own way is wrong" (p. 33). Such an approach appears to oppose the philosophy in education of standardization, where each child's achievement is expected to conform for expected

assessment outcomes: "The student is infinitely more important than the subject matter" (p. 176). It is clear what this philosophy expresses; the child is not an object of analysis, but the subject, the cared-for, what Rabbath calls "the King" (Sturm and Rabbath, 2005).

This is not to say teachers position students in a way that mistakes are acceptable; teachers should not ignore the fine details of teaching processes and procedures that aid in preventing flawed first tries. In teaching music, pedagogues may point out notes affected by the key signature before the first attempted, or, isolate specific articulations and bow-strokes in preparing to introduce an etude. As no initial performance of a piece of music is without "flaw," a first attempt and subsequent attempts could be considered learning opportunities through a sort of self-discovery.

One could conclude, based on the example, that music educators simply let students falter some at first (making inevitable mistakes) so that, through self-discovery, they make fewer mistakes and learn to solve problems in the moment. Elliott, however, believes the values of music can be taught by "educating musicianship in balanced relation to musical challenges within selected musical practices" (Elliott, 1995, p. 129). Like Dewey's claim that too much reliance on the child could be equally detrimental to the learning process, Noddings allows for indoctrination of certain core principals, with qualification, to a curriculum:

Some say that teachers should never indoctrinate. Others insist that it is necessary to indoctrinate at certain ages or in certain matters, but that at some later date (when students are more mature) questions concerning the grounds for belief will be encouraged. (1995, p.52)

This philosophy suggests that setting limits on what knowledge is presented and that temporary dogma might be a strategy for building a foundation for learning in steps rather than all at once.

An approach including the ethics of care in teaching may be a departure from typical approaches in education where a series of facts are to be memorized and retrieved on command through standardized assessment. Facts removed from a physical representation of the information could possibly create a dysfunctional approach to teaching and learning. This dilemma is perhaps manifested in standardization in education. Standardized testing in education reflects a paradigm that suggests every child's educational and social well-being might not be the aim of current day assessment in schools. As McNeil's critique of the Texas Assessment of Academic Skills test reported:

An examination of the current system of standardization, borne of the Perot era, reveals that once institutionalized, *standardization widens* educational inequalities and masks historical and persistent inequities.

Standardization shifts both the control of schools and the official language of educational policy into a technical mode intended to divorce the public from the governance of public schools. (McNeil, 2000, p. 230)

The system of standardized assessment could make it problematic to teach toward learning, as teacher performance ratings are often based upon student performance on tests created by outside agencies. As suggested by McNeil below, these agencies aim to provide, mostly, financial oversight in schools by way of testing as accounting. While teachers and children are concerned with learning and development, cost management

may be more concerned with controlling those outcomes and basing success in education purely on fiscal performance. Further, the system of accountability reflected in standardization has a structure that is disconnected from the real-world circumstances of community, family, and the classroom:

The power of the technical language of cost-accounting and management 'accountability' to impede, or seriously jeopardize, the capacity for citizens—for parents, communities, and education professionals—to bring this 'accountability' system to account. It's narrow and technical language excludes critique that employs nontechnical language: critique based on democratic values, children's development, and equity.

(McNeil, p. 232)

McNeil's findings suggest that community and teachers might be better positioned to assure learning takes place through parental and communal involvement in close tandem with expert, holistic, and humane teaching.

Music Education Philosophy

Plato, in his writings, gives importance to education in music for citizenship but, more importantly, the ability to recognize human beauty through receptive discriminative thinking (Mark & Gary, 2002). The Pythagoreans discovered and tested fundamental laws of nature by observing the vibrating string of the monochord and, further, music has fascinated and inspired human inquiry throughout history. Twenty centuries after the Pythagoreans, Kepler wrote in his *Harmonices Mundi* of 1619, "I grant you that no sounds are given forth, but I affirm...that the movements of the planets are modulated according to harmonic proportions" (in Calter, 2008, p. 25). Music has been said to

improve the human condition. "If I were not a physicist, I would probably be a musician. I often think in music. I live my daydreams in music. I see my life in terms of music." This was Albert Einstein's feeling toward music as essential to his existence (Bernstein & Bernstein, 2010).

Music is a subject that often receives philosophical inquiry. Assumptions have been made in philosophy that point toward a need for inquiry into teaching and learning music. For example, the following statement might create questions for music educators as to how people acquire meaning through music:

Some philosophers propose that music be regarded as *a way of knowing* by which man endeavors to make sense of, interpret and articulate - by means of a system of sound symbols - an aspect of reality which cannot be expressed in any other way. (Ludemann, 1999, p. 41)

Teachers, and music teachers specifically, may better serve the field and the students they teach if coming from a broad view of research that informs their practice. Various research in music education addresses the continuum of acquired teacher skill that leads from novice to expert teaching (Waymire, 2011, p. 5). Philosophic inquiry and research inform and serve the field of music in advocacy for education, curricular development, and practice.

While research has refuted the so-called 'Mozart Effect' (Rauscher, Shaw, and Ky, 1993), that some pundits interpreted as listening to Mozart makes people smarter, more recent research suggests that participation in music listening, learning, and performance activities may have a positive effect on human beings, generally, and specifically, improving cognitive ability (Chabris, 1999). The positive cognitive effects

of musical activity have been evidenced by numerous researchers (Halone et al., 2009; Handel, 1993; Hetland, 2000; Keller & Janata, 2009; Leman, 2008; and Schunk, D. H. 1996). A recent study (Rose, Bartoli, and Heaton, 2017) examining the effects of musical instrument learning on the concomitant development of cognitive, behavioral, and socioemotional skills of seven to nine year-old children reveals a positive effect of musical learning on intelligence. Data gathered in the study provided further "evidence that musical learning may support development in a child's ability to judge distance, consider velocity, focus, and use their proprioceptive, interoceptive, and exteroceptive nervous systems" (p. 1). That scientific research has been and continues to be done on the beneficial effects of music learning and performance suggests that philosophical bases for research can and should be applied for inquiry into music education itself.

Until the latter years of the 20th century, there had been no definitive and comprehensive volume on the subject of American music education philosophy. Bennett Reimer's *A Philosophy of Music Education* (Reimer, 1989) and David Elliott's *Music Matters: A New Philosophy of Music Education* (Elliott, 1995) are the two most comprehensive volumes on the philosophy of music education of the 20th century.

Abraham Schwadron, an influential writer on music education, summed up the need for the study of such works: "It seems very odd that the *why* of music has been investigated by those like Dewey, Mursell, Langer, and Meyer and yet categorically avoided by those directly responsible for daily musical instruction" (Schwadron, 1970, p. 26). Perhaps in reaction to Schwadron's view at that time, Charles Leonhard invited one of his graduate students, Bennett Reimer (at the University of Illinois at Urbana–Champaign), to write a

book on music education philosophy (Mark & Gary, 2002). Dr. Reimer's volume would become the cornerstone of music education philosophy for two decades.

By 1990 it was apparent music education philosophy needed further clarification and, possibly, a new lens through which to discover what could be considered a sound and universally accepted philosophy of music education. Estelle Jorgensen, music educator and philosopher, offered a challenge to the way music educators were thinking at that time:

There are several reasons why every music teacher should be a philosopher. In essence, these reasons amount to expressions of the principal that education is primarily a philosophical endeavor and that all of our objectives, methods and organizational structures must be philosophically defensible. (Jorgensen, 1990, pp. 19-20)

Jorgensen offered a primer in philosophic thinking, that philosophy is both a body of ideas and a way of thinking, while bemoaning the fact that music education students have little or no room in their curriculum for any meaningful philosophic courses. The importance of a philosophical foundation is apparent in the statement that, "Indeed, it is safe to say that every music curriculum is the embodiment of a philosophy of some sort, whether implicit or explicit" (p. 19).

Bennet Reimer's *A Philosophy of Music Education* was a major step in establishing the need for philosophic consideration in music education. Further development of music education philosophy took another step in 1995. At that time, a Canadian scholar and former student of Reimer's, David Elliott, published his *Music*

Matters (Elliott, 1995). In Reimer's review of Elliott's volume, he describes the state of music education philosophy at that time:

The publication of David J. Elliott's *Music Matters* is an important and interesting event in the history of music education scholarship because it brings to an end a very long period in which only one book entirely devoted to the explication and application of a philosophical viewpoint on music education, my own *A Philosophy of Music Education*, was widely recognized to exist, at least in North America. (Reimer, 1996, p. 59)

Elliot's *Music Matters* and Reimer's *A Philosophy of Music Education* are likely the most widely read volumes for music education scholarship today in America and music practitioners, including music educators, are well-served in the thoughtful study of these works so as to better understand the philosophical views that have helped shape the practice of the profession for most of the past fifty years.

David Elliott and Bennet Reimer present two seemingly contrasting foundations for their philosophy of the field. Reimer's early view was based upon an aesthetic philosophy of music education that focusses on preparing students to perceive and respond appropriately to musical works as forms of art (especially great works or "masterpieces") in order to "educate their feelings" and to evoke in them "aesthetic experience" (McCarthy and Goble, 2002, p. 21). The premise is that "the essential nature and value of music education are determined by the nature and value of the art of music" (Reimer, 1989, p.1). Reimer's philosophy says that works of music can and should be used to teach human feeling:

Art works do not tell us about feeling the way psychology does. That is, art works do not 'conceptualize about' feeling. Instead, their intrinsic qualities present conditions which can arouse feeling. In the direct apprehension of these qualities we receive an "experience of" feeling rather than "information about" feeling. And this "experience of" is the particular, unique way that the arts provide insight into the nature of feeling. (Reimer, 1989, p. 50)

This view is that the nature of music education is teaching feeling through the intrinsic qualities of musical works. In contrast, David Elliott's philosophy is based upon what he calls a "praxial" philosophy where the act of musicing, the act of making music in action as opposed to observing music, reveals perhaps the most potential for learning through "doing" music education:

By calling Music Matters a praxial philosophy, I want to highlight the importance of conceiving 'music' as a particular form of action that is purposeful and situated and, therefore, revealing of one's selfhood and one's relationship with others in a community. 'Praxial' emphasizes that music (as products-and-processes) ought to be understood in relation to the meanings and values evidenced in actual music making, music listening and musical outcomes in specific cultural contexts. (Elliott, nd)

This philosophy, in contrast to Reimer's, states that the primary values of music education are self-growth, self-knowledge, and optimal experience, each gained through a variety of music-centric activities, including *doing* music, or as Elliott labels it, *musicing*.

While, according to Reimer, the values of music can be taught through experiencing great works of art music, Elliott's philosophy additionally offers that through *doing music*, that is, performing, improvising, arranging, conducting, and composing, all while listening i.e., in the act of music creation, the musicer becomes the creator and channel for the illumination of human feeling and musical values.

Though seemingly two different approaches to a music education construct, there is overlap. In the third volume of Reimer's philosophy of music education, *Advancing* the Vision, the philosophies focusing on the works of music (aesthetic) and the process of musicing (praxial) as conduits to music learning are both justified as essential to music education:

"It would not seem a betrayal of the importance in musical experience of either form (product) or practice (process) to recognize not only that both are necessary for any inclusive understanding of music but also that *each depends on the other*. (Reimer, 2003, p. 50)

That the work of art depends upon the process of making it and the process depends upon the work seems to codify both views. Reimer further develops his philosophy by suggesting there are *musical intelligences*, defined by the role an individual assumes in music practice. While the theory of multiple intelligences was conceived by Howard Gardner (Gardner, 1983), Reimer challenges Gardner's oversimplification of the musical intelligence, positing that there are multiple musical intelligences expressed through musical *roles* for example, composing, performing, improvising, listening, music theory, musicology, and music education (Reimer, 2003, p.p. 219-229). Reimer's theory appears to resonate with Elliott's explanation of musicing but goes further to suggest an

individual may possess a dominant musical intelligence that needs identified and exploited in pedagogic practice through assigning the student a specific musical role.

Despite any music educator's tendencies to relate one's personal philosophy to either Reimer's or Elliott's, it might be stated that what is important is that music educators think deeply about the subject and reflect on how the profession may better reveal the unique aspects of music and the right of every child to experience and express a unique world view through music. In order for the music profession to have credibility in the eyes of the field of education, and in the eyes of the constituents it serves, it is imperative that the music educator have a philosophical base from which to guide, inform, and explain their work. It should be noted that both philosophers continued to write and broaden their views of the subject and write about learning through music.

There have been other important scholars in the field of Music Education philosophy. Dr. Wayne Bowman is a renowned scholar in contemporary music education whose publications address many issues in the fields of music philosophy, educational philosophy, and music education, including: teaching and learning practices, popular music, ethics, gender, community music, social justice, and narrative inquiry (Bowman, 2011). Estelle Jorgensen is an author and speaker on a broad array of themes in the philosophy of music education, is a fellow of the Philosophy of Educational Society, and serves as an editor for the *Philosophy of Music Education Review*. To re-iterate Dr. Jorgensen's recommendation, *Every music teacher should be a philosopher* (Jorgensen, 1990). Dr. Marie McCarthy has written extensively on a broad area of subjects in music education including, the sociocultural and sociohistorical foundations of music

education, in particular the study of music transmission, the relationship between music education processes in formal settings and those in the culture at large, and the impact of music education on the development of identity in individual and collective contexts. Music education scholars, among others, are tracing the history of music education and setting a future path for further development of the field through research and philosophic scholarship. The goal of broadening perspectives in music education is indeed a laudable one. Linking that goal to an interdisciplinary exploration of music teaching and learning intensifies the value of the outcome (McCarthy, 2003).

Music Learning Theory

A prolific researcher, teacher, author, editor, and lecturer in the field of music learning theory, Edwin E. Gordon (1927–2015) was known as a music education theoretician and wrote extensively on the effect of music on human beings. The following represents his philosophy of the value of music in the lives of all human beings:

Music is unique to humans. Like the other arts, music is as basic as language to human development and existence. Through music a child gains insight into herself, into others, and into life itself. Perhaps most important, she is better able to develop and sustain her imagination.

(Gordon, 2008, GIML: About)

Gordon was a professional bassist who performed in jazz bands and in improvisational environments and later authored nine highly regarded music aptitude and achievement tests. His extensive list of accomplishments includes more than 50 books and numerous

articles on the psychology of music, music rhythm, music learning theory, tonal and rhythm patterns, and music development in infants and very young children.

Dr. Gordon developed Music Learning Theory (MLT), which has at its foundation, *audiation*, a term he created to describe the foundation of musicianship. According to Gordon:

Audiation takes place when we hear and comprehend music for which the sound is no longer or may never have been present. One may audiate when listening to music, performing from notation, playing 'by ear,' improvising, composing, or notating music. Audiation is not the same as aural perception, which occurs simultaneously with the reception of sound through the ears. It is a cognitive process by which the brain gives meaning to musical sounds. Audiation is the musical equivalent of thinking in language. (Gordon, 2008, GIML: Audiation)

Understanding Gordon's theories is challenging as they explain what cannot be seen, that is, the processes that occur in perception and performance of music. Thus, it appears audiation is a complex process. According to Gordon, music, performance, and audiation have parallel meanings. "Music is the result of the need to communicate. Performance is how this communication takes place. Audiation is what is communicated. Imitation, memory, and recognition are part of the audiation process; alone, however, they are not audiation" (Gordon, 1999, p. 42).

In later years, Edwin Gordon wrote of the essential relationship of space, time, and movement in musical performance, "I make distinctions between auditory space and physical space and between music time and natural time as each interacts with

movement" (Gordon, 2015, p. 7). According to Gordon, an awareness and understanding of these distinctions may be paramount in the development of listening, performing, and teaching music in a manner that illuminates and develops the essence of and innate sense of rhythm. "Feeling of space is crucial for listening to and performing music to conceive and appropriate macro-beats and micro-beats as they support rhythm patterns in usual and unusual meters" (p. 15). All this suggests the importance of including a theory for *learning music* when one is learning an instrument so as to go beyond the technical rudiments of the instrument and develop innate musicianship as well.

Swiss composer, musician, and music educator, Emile Jaques-Dalcroze developed Dalcroze Eurhythmics, a method of learning, experiencing, and performing music through movement. He considered the use of the whole body and all the systems, especially the senses, essential for musical learning. During the early part of the 20th century, Dalcroze had become increasingly distraught with traditional conservatory training in Europe because he believed it failed to instill musical expressivity in students. This was so, according to Dalcroze, because pedagogy at that time stressed music as technical mastery of the classical repertoire, while ignoring the importance of rhythm and the body in musical expression (Seitz, 2005).

Dalcroze asserted that musical sensations of a rhythmic nature call for the muscular and nervous response of the *whole organism*:

To be completely musical, a child should possess an *ensemble* of physical and spiritual resources and capacities, compromising, on the one hand, *ear, voice, and consciousness of sound,* and, on the other, *the whole body*

(bone, muscle, and nervous systems), and the *consciousness of bodily rhythm.* (Dalcroze, 1921, p. 79)

Eurythmics describes a theory of physical action for a method of learning music and dance which considers an organized framework for realizing musical gestures:

Muscles were made for movement, and rhythm is movement. It is impossible to conceive a rhythm without thinking of a body in motion. To move, a body requires a quantum of space and a quantum of time. The beginning and end of the movement determine the amount of time and space involved. Each depends on the gravity, that is to say (in relation to the limbs set in motion by the muscles), on the elasticity and muscular force of the body. (p. 82)

Dalcroze' attention to the physical nature of learning music does not suggest another form of the mind-body separation, or dualism as in Cartesian philosophy. Rather, he suggests a holistic integration of the mind *and* body in the perception and psychological adaptation of information gained through the body as the basis for the theory:

He knew that this 'physic-psychic' quality of man was the key to the whole of his work. He saw the purely intellectual as an impoverished creature; he put his pupils on their guard against the dominating usurper, intellect, declaring sharply: 'Henceforward intellectual man must no longer be independent of physical man. There must always be between bodily movement and thought the possibility of free exchange and intimate union'. (Dutoit, 1971, p. 29)

When training students in musicality for a complete musicianship, the pedagogue must consider the physical aspects inherent in music related to the physical nature of making music. Dalcroze summarizes:

- 1. Rhythm is movement.
- 2. Rhythm is essentially physical.
- 3. Every movement involves time and space.
- 4. Musical consciousness is the result of physical experience.
- 5. The perfecting of physical resources results in clarity of perception.
- 6. The perfecting of movements in time assures consciousness of musical rhythm.
- 7. The perfecting of movements in space assures consciousness of plastic rhythm.
- 8. The perfecting of movements in time and space can only be accomplished by exercises in rhythmic movement. (p. 83)

Gordon and Dalcroze' theories of embodiment and the importance of space, time, and movement could be crucial elements in general music education philosophy. These viewpoints point toward the embodied mind theory and Phenomenology of Maurice Merleau-Ponty. Merleau-Ponty speaks of the role of the sensory system in physical perception:

The connection between sensations given by different senses. The classical conception understands the child as the receiver of different sensations from different sense organs which must be subsequently synthesized (i.e., visual sensations given by the eyes, aural ones by the ears, etc.). In reality, we find that these sensations are not bereft of mutual connections. Instead, it is a question of a *totality* of given sensations experienced

through the intermediary of the *whole* body. The child makes use of his body as a totality and does not distinguish between what is given by the eyes, the ears, and so forth. The child has no multiplicity of sensations. The fact that the child claims to see a sound that he hears implies the existence of *inter-sensory* relations. (Merleau-Ponty, 2010, p. 145)

Juntunen and Hyvönen (2004) embrace Merleau-Ponty's theory as applied in Dalcroze pedagogy to explain how developing musical expression through musical movement within the frames of Eurhythmics facilitates *musical knowing*. "Perceiving music does not depend only on hearing, but aural sensations need to be completed by muscular sensations" Dalcroze (1921), cited in (Juntunen & Hyvönen, 2004). This statement predicts Merleau-Ponty's *Connection of the Senses* (1968) which was not written until 1949–52.

Yet, Bennett Reimer did not include Merleau-Ponty's inquiry in his philosophy of music education: "An excursion into phenomenology would take this book too far afield for its purposes" (Reimer, 1989, p. 89). And, Elliott's philosophy of praxial music education is challenged by the phenomenological view of embodied mind. On the question of embodiment in musicing, Westurlund (2002) argued that Elliott's "cognitive theory neglects 'the sensing and feeling body,' the student's perspective, and the actual context of learning" (cited in Silverman et al., 2013, p. 62). It appears Music Education philosophy might benefit from a strengthening of embodiment theory in music learning.

When speaking of learning and teaching in the context of theories of music learning, cognitive psychology, and phenomenology a broader inquiry into the

phenomena of music and applied Music Education might require consideration of the embodied mind.

Philosophy of Psychology

As a result of 20th century philosophical inquiry by Husserl, Heidegger, Merleau-Ponty, Sartre, and others, the philosophic foundation of mind-body dualism established by Descartes in the seventeenth century and applied to this day in the West is facing a complete re-thinking (Lakoff & Johnson, 1999). Cognitive psychology arrived in 1967 with the publication of Ulrich Neisser's book *Cognitive Psychology* (Neisser, 1967). According to Neisser:

The term 'cognition' refers to all processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used. It is concerned with these processes even when they operate in the absence of relevant stimulation, as in images and hallucinations. Given such a sweeping definition, it is apparent that cognition is involved in everything a human being might possibly do; that, every psychological phenomenon is a cognitive phenomenon. (Neisser, 1967, p. 4)

Mind-body dualism is the doctrine that a person is a non-physical mind and contingently a non-mental body. In the dualist account, a person could, in principal, survive the destruction of their body but could not, even in principal, survive the destruction of their mind (Priest, 2003). Cognitive psychology was a rejection of Cartesian thought and theoretical constructs created as a result of a scientific method based upon Cartesian rationalism. Current philosophy goes further. The three major findings in cognitive science include:

- The mind is inherently embodied.
- Thought is mostly unconscious.
- Abstract concepts are largely metaphorical.

More than two millennia of *a priori* philosophical speculation about these aspects of reason *are over*. Because of these discoveries, philosophy can never be the same. (Lakoff and Johnson, 1999)

This viewpoint seems to suggest a new philosophy of inquiry into psychological phenomena has emerged in Western thought.

Maurice Merleau-Ponty (1908–1961), French philosopher and public intellectual, was the leading academic proponent of existentialism and phenomenology in post-war France. Best known for his original and influential work on embodiment, perception, and ontology, he also made important contributions to the philosophy of art, history, language, nature, and politics. For most of his career, Merleau-Ponty focused on the problems of perception and embodiment as a starting point for clarifying the relation between the mind and the body, the objective world and the experienced world, and expression in language and art, history, politics, and nature. Although phenomenology provided the overarching framework for these investigations, Merleau-Ponty also drew freely on empirical research in psychology and ethology, anthropology, psychoanalysis, linguistics, and the arts (Toadvine, 2016). In perhaps his most famous work, Phenomenology of Perception (1945, 2012), Merleau-Ponty provides a thesis for the rejection, possibly once and for all, of Cartesian dualism: "The development of a philosophy that assumes, 'man is simultaneously subject and object, first person and third person, absolutely free and yet independent' and nothing short of 'a new genre of

reflection,' is required to find a solution to the dichotomies of the history of philosophy" (Merleau-Ponty and Landes, 2012, p. xxxi).

Lakoff and Johnson give praise to the philosophers John Dewey and Maurice Merleau-Ponty referring to them as ... "'empirically responsible philosophers.' They drew upon the best available empirical psychology, physiology, and neuroscience to shape their philosophical thinking" (p. xi). The theory of embodied mind through perception and the physical and psychological connection in the process of learning should resonate with those involved in the pedagogy and performance of music.

Dalcroze appears to have been touched by the concept of embodiment when he devised Eurhythmics for learning music through the body. A *Physical and Psychological* approach to the double bass echoes the physical/psychological connection of Dalcroze: "He knew that this 'physic-psychic' quality of man was the key to the whole of his work. He saw the purely intellectual as an impoverished creature" (Dutoit, 1971, p.29); of Dewey: "chemico-physical processes go on in ways and by interactions which have reference to the needs of the organism as a whole and thus take(s) on psychical quality" (Dewey, 1928, p. 10); and of Merleau-Ponty:

[c. Existence between the "psychical" and the "physiological"]

These terms, which are hardly Cartesian, force us to form the idea of an organic thought by which the relation between the "psychical" and the "physiological" could become conceivable. (Merleau-Ponty, 2012, p. 80)

That the language used by Rabbath aligns closely with leading Western philosophers in and outside of music education suggests a *philosophical lineage* from Dalcroze to Dewey

through Merleau-Ponty and, finally, reflected in Rabbath's premise of the physical and psychological aspects of playing the bass.

In the early 21st century, after sufficient time to reflect on the findings of the earlier 20th century philosophers, a specific definition for embodied mind from the view of cognitive psychology was identified:

Embodiment Thesis: Many features of cognition are embodied in that they are deeply dependent upon characteristics of the physical body of an agent, such that the agent's beyond-the-brain body plays a significant causal role, or a physically constitutive role, in that agent's cognitive processing. (Wilson & Foglia, 2017)

From this thesis, it appears that for the educator, music performer, and music pedagogue there is a specific and genuine philosophical basis upon which to develop curriculum, that features *embodied curricula*. Embodied curriculum suggests the processes of perception and cognition may inform pedagogical method and choices. This too, might explain a physical and psychological approach for learning the double bass from current philosophies of psychology.

Effective Teaching

As reported in Darling-Hammond and Youngs (2002), Goldhaber and Brewer (2000) found strong influences of additional teacher training certification on student achievement in high school mathematics and science, above and beyond the effects of the teacher's subject matter degrees (p. 16). This finding suggests that teachers who achieve certification in teaching methods could better facilitate learning for their students. These

methods may be most effective when created and taught by expert performer/pedagogues.

The premise is further articulated by Berliner (1986):

If we ever do establish genuine teacher education laboratories, the exemplary performance of expert pedagogues will provide extremely useful case material for analysis by novices. It is likely, therefore, that studies of how expert teachers perform and think about their performance of routinized procedures will be helpful in training cooperating teachers to articulate their knowledge in ways that might truly educate their apprentices. (p. 6–7)

Goldhaber and Brewer (2000) also found evidence that math teachers with subjectspecific training (a mathematics degree or certification) outperform those without subject-matter preparation (p. 141). These findings suggest pedagogues serve students better when certified in a specific subject area as part of teacher training.

If the aim in teaching is to empower students with the ability to successfully fulfill goals, teachers must become skillful at facilitating this aim. Music Education researcher Robert Duke defines this skill:

As we become more skillful as teachers, we become more efficient at the task of helping, and we develop the ability to take learners from the first conception of a goal to its accomplishment. (Duke, 2012, p. 36)

Duke echoes Nel Noddings, pointing out that "students must have opportunities to *identify and correct their own errors*, even though doing so requires more time than would be necessary if their teachers just did all the work for them" (p. 37). Duke suggests that allowing a student to make an error and holding such as a teaching moment

is another level of skill the teacher may attain. The teacher must recognize the best moments to direct and correct the student or to let them self-direct and correct on their own.

Effective teaching strategies in one to one settings are crucial for successful outcomes especially with beginners. A study by Johnson, Williams, Parisi, and Brunken (2016) identified an effective teaching strategy of a swimming teacher for young children. Three key aspects to instructional effectiveness are framed in lessons where the instructor manages information load through the use of short but intense lessons separated by 23 hour and 45—minute time intervals; the instructor has an explicit awareness of exactly what goals were set for the series of lessons; the instructor employs an absolute consistency in behavioral management. The researchers transferred the swimming instructor's approach to an applied music setting (one-to-one) and found evidence that "the identified 'key' elements might inform instruction on a much broader level" (Johnson, et al., p. 300).

In the applied music studio, traditionally, students gain knowledge of teaching from the experience of working with a teacher. The informal setting of pedagogical training has often employed anecdotal information passed from generation to generation without consideration of current and recent research. McPhee (2013) discovered that many instrumental teachers are generally highly trained and skilled performers who are self-taught educators:

...music studio teachers in Australia tend to be accomplished musicians who are self-taught educators, a state of affairs not unique to Australia. Haddon (2009) noted 'in the UK, a lack of provision and awareness of

formal training programmes means that musicians often begin to teach with little support from significant others, and can have a very partial understanding of how to teach effectively.' (p. 58)

The phenomenon suggests that instrumental teachers who have not considered the ramifications of learning theory, psychology, and the physical nature of playing instruments on the teaching/learning dynamic could be misguided in attempts to provide students with best practice in applied pedagogy. A teacher's "very partial understanding of how to teach effectively" might very well limit the opportunity for students to develop full potential as musicians.

Duke and Simmons (2006) observed the elements of renowned expert artist-teachers. Of the common elements exposed by this research, the researcher identified the following as congruent with Rabbathian pedagogy:

- Repertoire assigned students is well within their technical capabilities; no student is struggling with the notes.
- Teachers demand a consistent standard of sound quality from students. They do not let sound problems persist in their presence.
- Performance technique is described in terms of the effect that physical motion creates in the sound produced.
- The teachers clearly remember students' work in past lessons and frequently draw comparisons between present and past, pointing out both positive and negative differences.
- Pieces are performed from beginning to end; in this sense, the lessons are like performances.

An interesting finding is that while expert artist-teachers permit students to make limited interpretive choices, students are permitted no choices regarding technique, suggesting students' musical personality receives empathy in masterful teaching. In this study,

standards of sound and technical choices are guided by the teacher almost entirely, which suggests further that monitoring technical aspects of a students' development may help develop musical personality through self-guided interpretation unencumbered by critical flaws in technique.

All of this is not to suggest that a music teacher's effectiveness depends entirely on research in a diverse set of fields of inquiry as there are certainly extremely gifted and effective music teachers who are self-taught. It may be that a philosophy that states, the more knowledge one has, the more choices are available to solve problems, may support and guide the pedagogue to creative and divergent solutions for facilitating learning and teaching.

Research into Biomechanics and Ergonomics of String Performance

In the latter part of the 20th century, a new field of inquiry emerged that addressed the physical and psychological issues inherent in the performing arts. Since the creation of the peer-reviewed journal, *Medical Problems of Performing Artists* (1985), thousands of studies have been undertaken to observe and attempt to find answers as to why many artists, musicians specifically, suffer as a result of musical performance practice.

Recently, new technologies have enabled the field of biomechanics to observe and measure how the body functions in musical performance; however, inquiry into the physical aspects of string performance began much earlier.

The first major contribution to the literature of scientifically based string pedagogy was the work of F. A. Steinhausen, a medical doctor and amateur string player, whose book on the physiology of bowing the violin was published in 1903. Thirty years later, Percival Hodgson wrote *Motion Study and Violin Bowing* (Hodgson, 1934).

Through motion capture technology, Hodgson made discoveries that illuminated the biomechanics of the bow arm and coupled physiological observation with its implications for the violinist and the teacher (Fray, 1981). Hodgson's observation that the arm is not unlike a series or set of "extraordinarily adaptive springs" was further developed by Ivan Galamian into a whole-body concept of "springs" in violin playing (Galamian, 1962).

Frederick Polnauer pioneered the idea of using new technologies for the development of scientifically based string pedagogy from concern for a new approach to musical skill training (Polnauer, 1952). Polnauer proposed:

... to develop in musical skill training the kinaesthetic sense to a much greater extent as compared to present practice and, at the same time, learn to depend to a lesser degree on the guiding function of ear and eye. This could be achieved by introducing principals of biomechanics into musical training. (p. 297)

Polnauer's proposal suggests that the body, through kinesthetic sense, can be trained through music instrument pedagogy and he further assessed the state of research in music education in the early 1950s could benefit from the potential of technology to inform music education:

It is a known fact that music educators have, thus far, stayed away from the scientific study of music education, and that they are only barely acquainted with scientific music literature. (p. 297)

Since Polnauer's proposition, developing technologies including electromyography (EMG), high speed motion capture, and computer animation with sound wave analysis

have been employed in studies examining physical and psychological phenomena that occur in music performance and perception of music.

In 1966, Rolland and Colwell described the need for research into the condition of string pedagogy in American string programs and found a decline in string instrument study with the rise of wind instrument participation in band programs in America. The authors described the state of student string performance:

The two Symposia held at Tanglewood during the summers of 1963 and 1964 by the Boston Symphony Orchestra were quite vocal in their reports concerning the poor quality of student players, and the subsequent lack of professionally oriented talent. Indeed, as one observes the individual quality of playing of the multitude of children, their poor approach to string playing is evidenced by inferior tone quality, intonation, poor positions, and uncoordinated angular movements. (Rolland and Colwell, 1966)

Rolland and Colwell's initial study proposed the creation of a two—year program in string instruction at the University of Illinois. Rolland believed that good violin playing possesses a 'Gestalt' quality which is not determined by the individual elements it contains, but rather by the structural relationship between these elements and the whole. Rolland's theory was in response to Flesch:

Hence, successful violin playing is not synthetically determined by its component parts, as one would tend to believe upon reading Carl Flesch's famous and widely accepted 'Urstudien', followed by practical methods of many authors. In this work, Flesch broke down the complex structure of

violin performance into small components for the purpose of intensive study of isolated parts, and thus established, in the first part of this century, a pedagogy that is still dominant today. (p. 37)

Rolland argues that every movement made in playing the violin is a compilation of its constituent parts (Roland, 1986). Thus, the theory of a holistic approach to the physical nature of playing strings was introduced to string curricula and studied through the Illinois String Project that subsequently produced the landmark work, *The Teaching of Action in String Playing*, a fourteen-film collection of Rolland's teaching through the theory. Rolland's further contributions to string education include founding and becoming the first editor of *American String Teacher*, the journal of the American String Teacher's Association.

Rolland's discoveries of the role of movement in string playing were further developed in combination with the theories of F. M. Alexander, creator of the *Alexander Technique*. McCullough's study (1996) exposed the philosophy and theories of Alexander to the research in the musculature and physical processes in string playing of Rolland. McCullough explicated the research of Rolland through the theories of Alexander to create exceptional pedagogic knowledge as to the physical and psychological nature of playing strings. Rolland's 'Gestalt' theory of violin playing was confirmed by McCullough:

String players traditionally speak of left and right hand technique as if they were entirely separate entities. When an understanding is gained of the spiral arrangement of the musculature, such terms should become only a means of designating the specifics of the tasks each hand performs. The

hands themselves are the ends of a unified process that involves the brain and entire human structure of the player. (McCullough, 1996, p. 54)

McCullough described Alexander's method for teaching that considers a kinesthetic aspect for learning to use the body efficiently and effectively:

Learning to use oneself well, both in everyday living and while playing an instrument, is not a simple matter of being told (or telling oneself) to 'stand up straight.' A direct sensory experience must be gained of the directions that Alexander gave to himself and to his students: 'neck to be free, head to ease forward and up and back to lengthen and widen'. Those who worked with Alexander in his later years assert that, for the most part, he abandoned giving those verbal directions, as the words were descriptions and not the experience itself. Alexander instead gave the student the sensory experience through the use of his hands. (p. 60)

Alexander's later pedagogy appears to contain similar philosophy and pedagogic theory to Rabbath's *son premier* for the double bass. In the teaching piece *son premier*, (Sturm and Rabbath, 2005), Rabbath gives the student sensorial and tactile information by *playing with the student*, that is, the student's arm rests on the left arm of the teacher and the teacher holds the fingers to the frog of the bow. The teacher, with the student, plays a grand deteché stroke with correct balance of three sound criteria, weight, contact point, and speed of the bow, creating the most free and ringing vibration of the string. The student has no obligation other than to observe the kinesis of the movement and the aural character (tone) of the resultant sound. Rabbath states, "the student never learns another way than the right way." A pedagogy for playing the double bass that forgoes verbal

explanation (through teaching a kinesthesia from the beginning) might result in the pupil's internalizing crucial bio-mechanical and sonic information early in development. Later, according to Rabbath, purposeful manipulation of the factors for bowing may enable creative interpretation through the *palette sonor* (Sturm and Rabbath, 2005).

Rabbath, with Dr. Hans Sturm and Dr. Eric Dugan, at Ball State University in Muncie, Indiana, USA collaborated on a project that employed high speed motion capture and 3-dimensional animated graphics technology in the two-part video series, *Art of* the Bow and *Art of the Left Hand*. The project was designed to capture the subtleties of Rabbath's technique with Vicon MXTM high speed cameras. Animation software revealed the biomechanics of Rabbath's bowing technique from 4 different angles in an interactive interface. The result was the creation of an innovative pedagogical tool that earned accolades from around the world:

While traditional music publications or videos are limited to illustrations or photographs from a single viewpoint, the DVD's four camera angles enable a student to select viewing options that focus on an angle of particular interest. As a result of the pioneering in-depth study and its accompanying performances and interviews, the DVD has received international acclaim. (Dugan, 2007)

The animations of Rabbath playing suggest a new approach to pedagogy for instruments benefited by animations of the biomechanics involved in performance.

Collaborative research in the Arts and Technology evolves as technology and technique evolve. Perhaps as the motion technology improves, more detailed explanations of human performance to inform instrumental pedagogy may be created.

Meyer and Edwards highlight the opportunities technology may create in examining processes of performance pedagogy and developing traditions from scientific evidence: "Our challenge as pedagogues is to build on the richness of our tradition—our communal inheritance, while looking to science and neighboring professions for new tools to enhance our training" (Meyer and Edwards, 2014, p. 442).

The fields of Music Education and performance have developed standards of scientific research and a broad array of peer-reviewed journals have been created to assess and disseminate new research into the teaching, learning, and performance of music. These journals reflect Polnauer's directive: "Consequently, we will turn our attention to some of the disciplines hitherto neglected by the psychologists, namely, physiology, anatomy, physics, and mathematics" (Polnaur, 1952, p. 298).

Prominent String Methods

Prominent Double Bass Methods

Nuovo metodo per contrabasso

Isaia Billé an Italian virtuoso double bassist, as well as a great pedagogue, left an extensive collection of compositions and pedagogical materials for the double bass.

According to Billé:

I believe I have done an agreeable thing for my pupils and for students in general, by writing a New Method for 4 and 5 string Double Bass, which I have divided into two parts. The first of these, subdivided into three perfectly distinct courses, beginning with an instructive, theoretic didactic compendium, serves exclusively for the Double Bass when studied as an ensemble instrument; to this end, I have also added a complementary

course regarding the orchestra school. The second of three courses serves for the Double Bass studied as a solo instrument and for the perfectioning of the concert player, for whom I have also written several pieces with piano accompaniment and 24 Capriccios. (Dahmer, 2017, p. 10)

The above explanation reflects the developmental philosophy of traditional methods for double bass where concepts for techniques are introduced sequentially rather than through over-arching philosophical tenets introduced from the beginning of study. The young player is directed toward ensemble playing immediately. According to Rabbath, this pattern of development might put at risk students' discovery of their own individual voice and expressivity. Billé's complete method contains etudes, orchestral and solo repertoire, and 24 caprices, possibly in homage to Paganini.

Méthode complète pour la contrebasse à quatre et cinq cordes

Édourd Nanny was the first inspiration for Rabbath (Greenberg, 1999). Nanny, bass professor at the Paris Conservatoire until 1940, who was part of *la Société de concerts des Instruments anciens* gained some international exposure as a composer during his lifetime, although he never enjoyed the worldwide respect he received in France. Among his most famous works are the Concerto in E minor and *Consignment Compleat* (Complete Method), a collection of pedagogical works including the 2-part Méthode complète pour la contrebasse à quatre et cinq cordes, the Vingt études de virtuosité, and his Dix étude-caprices. Additionally, the Concerto in A Major that was attributed to classical Italian virtuoso Domenico Dragonetti was, purportedly, penned by Nanny. Nanny's method contains little, if any, philosophical discourse.

New method for string bass

Franz Simandl's double bass method was the most widely used for much of the 20th century Leavit, 1997). The Simandl method is directed mostly toward the orchestral approach to playing the bass. Techniques are presented for the needs of examples from the standard repertoire of the orchestral literature, mainly from the 18th and 19th century canon. Simandl, in the forward of the method states the purpose of his method: "for general understanding to supply the student with a thorough education on this particular instrument in an easy and practical manner and in accordance with present-day requirements" (Simandl, 1888, p. 3). The double bass has evolved due to advances in technology since the late 19th century. For example, stringed instruments, in general, historically used animal bi-products, for example, the entrails of cats and sheep, as material for strings. Since the advent of synthetics in the mid–20th century, materials for the manufacture of strings for instruments including metal, tungsten, and nylon, have affected performance practice. Bass strings are no longer as thick as gut strings and allow for greater dexterity, velocity, and support of weight. Modern double bass strings enable playing the entire length of the fingerboard on each string with balanced sonority.

Current methods for bass exploit innovative string technology by exposing solutions and introducing repertoire that take advantage of the resultant evenness of sonority and projection of the bass. Innovations such as the angled end pin, advocated by Rabbath, require making modifications in playing position. Pedagogy for the use of the "French bow" was relatively new in Simandl's time as the first great exponent of the over-hand bow hold was Giovanni Bottesini (1821-1889). Assuming the evolution of the bass in newer performance genres and innovations in the materials used in bass design

and setup, it appears the Simandl method is an excellent manual to learn the necessary fundamentals for performance practice of the 18th and 19th centuries.

The Nouvelle technique de la contrabasse

The Rabbath Method, in 5 volumes, contains a unique explanation as to the physical and psychological demands inherent in playing the double bass. A CD-ROM was produced and contains multi-view videos of Rabbath performing techniques and repertoire from the NTdlC (Rabbath, 1998). Concepts such as dissociation, Movement-Space-and Time, and vocabulary modification are presented in a unified physical and psychological approach, an approach where Rabbath encourages individuality without limiting the player to any one style. The *Method* purports that logic, based upon natural principals, is developed in the student so as to be able to solve problems in-action. Rabbath developed a philosophy for playing and learning the bass and appears to believe that cultivating a positive, forward-looking attitude, based upon self-reflection and avoidance of negative feedback, can help prevent the student from focusing on others in competition and rather compete with themselves (Sturm and Rabbath, 2005). The NTdlC was mainstreamed in America in Rabbath's lifetime (Leavit, 1999). The Rabbath Method contains nearly 80 etudes and concert pieces for public performance at every level from beginner to concert performer.

The Double bass

Yoan Goïlov wrote a comprehensive narrative based upon forty-years of experience as a double bass performer, pedagogue, and adjudicator (Goïlav, 2003). The volume contains only a handful of musical examples to support his views on artistic performance and pedagogic practice and strongly suggests the author has researched

outside of the field of music to support espoused theories. Information from a broad range of topics informs Goïlav's philosophy of bass playing which echoes Rabbath's philosophy of the need for care in the smallest details of a teacher's method:

It is sometimes possible that the entire philosophy of playing the double bass is hiding in a simple recommendation given by a teacher in the first lesson, or in a simple exercise found on the first pages of a method book. (p. 50)

Goïlav describes qualities of students personally encountered that may reveal the longterm outlook for a musician with an anecdote about the great 19th century bassist/musicer, Bottesini, which defines his view on the approach of a genius:

Does it exist? If it does, it manifests itself very early in some beginners as a love at first sight for the double bass. Practicing is always accompanied by a certain fascination and great determination. For example, the young Bottesini, trying the instrument for the first time didn't stop playing until the bow fell out of his little hand.

further qualities the "genius bass player" might possess:

- Coming from "the planet Bass."
- Innate auto-didact (self-taught).
- Difficult to influence.
- Blessed with a paranormal instinct for solving all technical problems,
 quickly and in his own way.
- Able to react spontaneously.

- Always looking straight ahead, he listens politely to what teachers say, but is unimpressed by criticism or compliments.
- Gifted with an internal compass fixed upon the Pole Star of the double bass, allowing him to migrate towards his goals without veering from the path. (p. 34)

Goïlav, the pedagogue, recommends the teacher must be very careful to "inform without upsetting the natural equilibrium" and that the *wunderkind* "makes his teachers aware of their responsibilities to the greatest extent" (p. 35). Goïlav acknowledges Rabbath as "a composer who has enriched our repertoire with works of outstanding value" (p. 21) and recommends the NTdlC as suggested reading (p. 177).

Other Prominent String Methods

A New approach to violin playing

Kató Havas espouses a holistic approach to playing and teaching the violin. In describing the responsibility of the teacher Havas puts forth the concept that the teacher must be aware of the physical, psychological, and spiritual condition of the student:

Teaching the violin, like going into the ministry, or nursing, is not merely a job, or a profession, but a vocation. For, while the clergyman is responsible for the well-being of the soul, a nurse for the well-being of the body, a violin teacher should really be responsible for the free expression of both. (Havas, 1961)

Havas presents anatomical explanations for the physicality of playing the violin that are meant to protect and inform the player so as to cultivate a healthy practice, similar to Rabbath's physical and psychological approach. Havas has written about the

phenomenon of stage fright as well, a valuable exposé on a condition many performers experience (Havas, 1973).

Six lessons for the violin

Yehudi Menuhin played the violin, conducted orchestras, and taught music well past the age of 80. Menuhin addressed the responsibility of the instrumentalist to develop the mind and skill set necessary to sustain a lifetime of performance:

It is necessary not only to concentrate on the playing of the violin, but to cultivate an attitude of mind and heart, as well as certain habits of hygiene and physical condition so as to burden the playing itself as little as humanly possible with impediments of any kind. (Menuhin, 1971)

In the first chapter of Menuhin's treatise *Six Lessons for the Violin*, before any directions for playing the violin are given, definitions and directions are presented for integrating into the musician's practice, breathing exercises, posture, basic positions preparatory to action, a continuous series of stretching exercises, balancing exercises, swinging exercises basic to string playing, exercises for the arms employing thrust and momentum, (applicable to playing and conducting) and five yoga exercises specific to musical performance (p.p. 16–31). In *Six Lessons*, Menuhin defines the term, "posture", one that is found in many studies and articles examining performance related injuries (PRIs) and performance related musculo-skeletal disorders (PRMDs). The term "posture" Menuhin defines as:

Posture thought of in itself seems a static situation. This is by no means the case. Not only is it the result of a continuous balance of opposing forces, but at the same time is imbued with pulse and rhythm, the pulse of

our heart and the rhythm of our breathing. Musicians think in these terms. (p. 17)

Menuhin was an inspiration for Rabbath and in *Art of the Bow* Rabbath recounts a chance encounter with the great violinist while performing with his trio at a Parisian bistro as a turning point in his life. Having listened to the Rabbath trio while eating his meal, Menuhin approached the bassist and said, "show me your hand" and upon observing the string marks on his fingers (a sign of intense practice), Menuhin told him, "continue like this, and you will go very far" Rabbath cites Menuhin's encouragement as the impetus for all he has done as a bassist and development of his philosophy of "one word" (Sturm and Rabbath, 2005).

Principals of violin playing and teaching

Acclaimed as a violin pedagogue in the second half of the 20th century (Karp, 1981) Ivan Galamian wrote *Principals of Violin Playing and Teaching* (1962), a compendium of technical terminology, strategies, and applications for string performance that has dominated violin pedagogy for the past fifty+years. Galamian discusses items including technique, interpretation (p. 94–95), and problem identification that hints at dissociation (p. 99), similar to Rabbath (Rabbath, 2012; Sturm and Rabbath, 2005). In the discussion of *The Critical Ear*, Galamian argues that "the ear must be a critical listener" and " ... mental preparation and control must be supplemented by the sharpest and most constant supervision by the critical ear. The sound produced has to be under permanent scrutiny" (1962, p. 101–102). The last statement, especially, seems to elucidate the Rabbath aphorism, "the ear is the professor" (Sturm and Rabbath, 2005) and the importance Rabbath places on sound.

Playing the viola: Conversations with William Primrose

David Dalton, in collaboration with William Primrose, wrote a book detailing pedagogy for viola performance (Dalton, 1988) which contains information on pedagogic items including tone production, instrument and bow hold, and ergonomics etc. Detailed black and white photos are included and in particular, a picture of the 45° angle of the instrument to the body reveals the geometric essence of stringed instruments in relation to the position of the player's body. Primrose addresses a common problem of upper string players referred to as *Bruxism* in the arts medicine literature (Rodríguez, et al., 2008) and recommends the player should play while looking at the ceiling in order to break the habit of clenching with the chin. The strategy is similar to Rabbath's demonstration of holding the bass, recommending raising the arms toward the ceiling to avoid developing the habit of holding or clenching the bass with one's arms and hands (Sturm and Rabbath, 2005).

The Suzuki method: Talent Education

The Suzuki Method for music education was born in an epiphanic moment in 1931–32 by the method's namesake, Shinichi Suzuki:

...it hit me like a flash: all Japanese children speak Japanese! If a child cannot do his arithmetic, it is said that his intelligence is below average. Yet he can speak the difficult Japanese language—or his own native language—very well. In my opinion, the child who cannot do arithmetic is not below average in intelligence; it is the educational system that is wrong. (Suzuki, 1983)

Suzuki believed that "Talent is not inherited" but is developed by the environment of the child (pp. 8–14). The Suzuki philosophy developed into a pedagogic method for instrumental music through personal teaching and the teaching of disciples in the 20th and 21st centuries, sometimes referred to as *Talent Education*. The Suzuki Method is practiced globally and allows children as young as three years to begin training their talent with the primary goal to create "noble persons" and try to make them "splendid in mind and heart also" (p. 15). The environment Suzuki envisions is one where the child is *Nurtured by Love*. This environment is often created with the involvement of the family, "the parent-child-teacher relationship" (Kendall, 1986, p. 49).

In America, the Suzuki Method blossomed due to the tremendous need for string players in all levels of the school programs, which was a finding of the 1965 Tanglewood report *Problems and Paucity of String Players*, and also a strong interest in child education (Kendall, p. 48). By the 1970s, summer institutes for parents, teachers, and students were established and growing numbers and quality of students were evidenced (p. 49).

Eventually, issues surrounding the philosophies and pedagogy of the Suzuki Method surfaced leaving some concerned educators to ask; would *American* children achieve as well; would they learn to read; or would they play like little robots? (Hendricks, 2011). These often-repeated questions would have to be answered (Kendall, p. 49). Descriptive research into the phenomenon of the behavior of music teachers and the instructional activities in which teachers and students engage appeared in the 1980s and 1990s and at the turn of 2000, scholarly research continued into the phenomenon of Suzuki.

Research includes inquiry into teacher and student behaviors in Suzuki lessons (Duke, 1999) and inquiries into Suzuki philosophies and application in music education (Hendricks, 2011; Krigbaum 2005; Smolen 2000). Hendricks' philosophical inquiry is of particular interest as it addresses Estelle Jorgensen's critique of Suzuki-trained educators who may rely too heavily on rote pedagogical methods without careful reflection of the philosophical principals underlying the approach. Hendricks argues that "Suzuki's philosophy may be better (although differently) articulated than Western scholars give it credit" (Hendricks, 2011). Hendricks articulates Suzuki's philosophy of music education, naming it *Music Education as Love Education* (a play on Bennett Reimer's *Music Education as Aesthetic Education*), to reflect Suzuki's principal focus on the nurturing of students.

Hendricks advises that "Regular philosophic inquiry provides music teachers with an opportunity to evaluate (and continually re-evaluate) their own pedagogical methods, as well as the purposes for those methods" and that "Suzuki teachers would be unwise to ignore all critiques aimed at them, since much can be gained from regular, sincere, and candid self-reflection" (p. 137). Perhaps as an answer to Jorgensen's claim that "their philosophy is only 'relatively articulated'" (p. 138), Hendricks provides analyses of Talent Education philosophies through the lens of Suzuki, her own, and other practitioner's scholarship including:

- Shinichi Suzuki intended for his followers to continually reflect upon and improve their own way of living, teaching, playing, and thinking. (p. 138)
- According to the traditional Buddhist understanding, our human nature is without ego. (p. 140)

- Suzuki is an, "action-based philosophy, one of love and a belief in the potential of all children." (p. 141)
- Many Suzuki teachers quote their sensei as saying, "Tone has a living soul,"
 "Tone is the living soul," and "Beautiful tone, beautiful heart." Suzuki taught that it was through the spiritual nature of tone that one could sense the quality of a musician's soul. (p. 143)

Training in the heart and the ear reflects the instructor's ability to teach (p. 144). Playing and teaching from a philosophical lens such as that of Suzuki's and Rabbath's could be considered about more than performing the notes of the repertoire found in the method. When pedagogy occurs that forgets the philosophies upon which it was created, the method may fall short. Suzuki knew this and cautioned against a focus more heavily on pedagogical principals than on philosophy: "Teaching intonation and teaching technique will never be more than a method. We are burning with a deeper mission that we must do something for the future" (p. 149).

A philosophy like Suzuki's develops through many years of living and working through the principals found therein. Talent Education philosophy has been applied, examined, and developed through the thousands of students, teachers, and scholars who have been touched by Suzuki's vision for more than 85 years. Nonetheless, philosophies that espouse the *spiritual nature of tone* have existed for thousands of years. For example, the ancient Hindu philosophy *Nada Brahma*, translated from Sanskrit, concludes that sound is omnipotent: *nada* meaning sound, *Brahma* the universe, the *World is Sound*, or everything is sound (Ernst-Berendt, 1988). Nada Brahma is a philosophy for living, informed by balanced perception of the environment and guided by

what is heard, rather than by what is seen. The philosophy appears to have been manifest in many ancient cultures in which music was a prime transcendental activity (pp. 28–29).

George Vance Progressive repertoire

George Vance (ca. 1957–2010) was a double bass performer, pedagogue, and creator of Progressive Repertoire® for the Double Bass (Vance, 2000). Vance was a graduate of Carnegie Mellon University studying double bass and orchestral repertoire with Anthony Bianco, Principal double bassist Laureate of the Pittsburgh Symphony Orchestra. After professional orchestral performance, and study in Japan with Shinichi Suzuki, Vance was awarded the certificate of observation and study from the Talent Education School of Music in 1989.

Vance became a pupil of Rabbath and re-invented his playing practice, becoming an artful musicer, master pedagogue, and "led the way to raising the standards of double bass artistry by starting children on the instrument at a younger age" (Horugichi, n. d., p.33). After earning the teaching diploma of the *Institute International de la Contrabass* in 1996, Vance hosted summer bass camps for students and pedagogues from the 1990s until his untimely death in 2010. Since then, the vision of the Master teacher has been preserved and made manifest in bass camps hosted by former pupils as well as pupils of Rabbath.

Vance collaborated with François Rabbath to adapt Rabbathian techniques to the repertoire of Suzuki creating a beginning method for the double bass that has become a popular method for individual and group double bass pedagogy in public and private schools. Importantly, Vance's works "served as a medium for the teaching philosophies of Rabbath and Suzuki" (Horiguchi, p. 34). George Vance was responsible for

establishing and codifying an approach to bass education built upon philosophical and pedagogical aspects of Suzuki, and the techniques and philosophies of Rabbath.

Suzuki used the term "tonalization" to refer to the search for the most beautiful tone possible to produce on a given instrument. "The tonalization process develops acute listening and bodily awareness" (Vance, 1985). Vance describes the pedagogy for tonalization "Before playing a piece in the lesson or practice we do tonalization to warm the player mentally and physically" (Vance, 2005). The idea was further developed by Rabbath and described by Vance:

Le Son Premier

At the first lesson with François Rabbath, whether you are the principal bassist of a major orchestra or an absolute beginner, you find out there is an ideal place to put the bow on the string for each note in order to make a freely ringing sound. This is one of his fundamental ideas and he calls it *le son premier*, the basic sound or the first sound one should learn to produce. (Vance, 2005, p. 10)

The pedagogy for *son premier* was crystalized by Rabbath as shown in *Art of the Bow* (Sturm and Rabbath, 2005). It might be that, until recently, the search for the most beautiful tone stemmed from an inability of the printed page to convey tone aurally and, possibly, the lack of an effective pedagogy that focuses on *son premier* from the beginning.

Vance documented his pedagogic and philosophic views in his studio newsletter, Slava Publishing Reader which offered clarification for identifying the teachings of Rabbath, referred to at that time as The New Technique de la Contrabasse: I've decided to stop referring to the teachings of François Rabbath as "The New Technique". It occurred to me that Franz Simandl's hoary volumes, however long in the tooth, are still published as "New Method for the Double Bass" after 100+ years. In Simandl's case I think history made its' judgement ("good stuff") and moved on.

Suzuki originally called his material "Talent Education" because that's what it was. But he lived so long that by the time I met him, he was in his late eighties, even he was calling it The Suzuki Method.

And to tell the truth, even though there are bass players out there who haven't gotten the message yet, *Nouvelle Technique de la Contrabasse* has been available to mere mortals for two decades already. Sooner or later we are all going to call it the *Rabbath Method*. I started calling it that last week. (Vance, 2005, p. 2)

Vance's assertion might appear somewhat insignificant, yet is important, when documenting the genesis of a comprehensive method for future practitioners and researchers, to establish current identifying terminology. To call a pedagogy "new" after 100+ years can be misleading.

George Vance was an important figure in double bass pedagogy whose life work was to make the instrument available to children of any age. Unfortunately, his life ended prematurely:

George Vance passed away on August 16, 2009 after a brave battle with pancreatic cancer. He was internationally recognized as a pioneer of pedagogy for young bassists. The author of Progressive Repertoire for the

Double Bass, a method for teaching the bass to young students, he was on the faculty of the University of Maryland, and lectured and gave clinics in Ireland, England, Finland, Sweden, Canada, Australia and throughout the United States, as well as holding his own popular annual workshop. A student of Tony Bianco and a graduate of Carnegie-Mellon University, he was awarded the American String Teachers Association "Citation for Outstanding Leadership and Merit" in 1990. In 1995 the International Society of Bassists presented him with a Special Recognition Award for his groundbreaking work. Vance held a teaching certificate from the Institut International François Rabbath." (In memory, George Vance, 2009)

Vance's Progressive Repertoire for the beginning bassist, conceived upon the pedagogies and philosophies of Suzuki and Rabbath, is a valuable addition to double bass pedagogy (Horiguchi, n. d.).

Summary of the Review

As cited earlier (Seel, 2012), a definition of music method includes the need for research in related areas such as philosophy, cognitive psychology, developmental psychology, social psychology, and educational psychology. The complete writings and video presentations of François Rabbath present a broad range of knowledge from related fields including: education philosophy, music education philosophy, music learning theory, philosophy of psychology, best practice in teaching, biomechanics and ergonomics of stringed instrumental performance, and applied music research. In order to thoughtfully and thoroughly analyze the *Rabbath Method*, careful attention has been

dedicated to fields of scholarship that could inform the reader as to the philosophical bases of related areas suggested by the *Method*.

The third volume of the *Rabbath Method* begins with the treatise *A Physical and Psychological Approach to Playing the Double Bass*—an open window to François Rabbath's mind—a philosophy of performance and pedagogy that has "significantly contributed to the knowledge of teaching and performing on the double bass in the 21st century" (Fanelli, 2009). The result of this research may serve performers and pedagogues to better understand how, philosophically, the *Rabbath Method* may best be applied to playing and teaching musical instruments. Further, knowledge gained from a critical analysis of currently successful philosophy and pedagogy can be valuable to Music Education practitioners so as to help improve the experiences of students in broader settings, including public and private schools.

CHAPTER III - METHOD

This study traced how the philosophical and technical tenets of *The New Technique de la Contrabass* (the *Method*) are currently applied in the performance and pedagogy of those who have studied closely with François Rabbath and hold Diplomas from the *Institute*. The research was designed to establish where the *Method* is taught and how the philosophical tenets and pedagogic theories of Rabbath are manifested and disseminated by Rabbathians in current double bass pedagogy. By determining how the *Method* is currently applied the researcher aims to give the reader an accurate iteration of Rabbath's technique, pedagogy, and philosophy through the lens of Rabbath and first-generation Rabbathians.

Participants

Potential participants for the study included all current (2017) diploma holders of the *Institute International de la Contrabasse François Rabbath* (the *Institute*) made available to the researcher by the president of the *Institute*, François Rabbath. Those certified to teach, perform, or both, by the *Institute* were selected for the study (*N*=46). An internet-based request for participation yielded 24 responses from the initial contact pool of Rabbathians. The creator and author of the *Method*, François Rabbath was interviewed.

Data Sources and Instrumentation

Fanning (2005, p. 2) cites Dillman (2000) and Ekeh (1974) in explaining the Social Exchange Theory and why respondents would be compelled to respond to a survey "as a means of validating their participation or association with a group or endeavor."

The data collection was organized into three parts.

For data collection in part one of the study, quantitative data was obtained through a researcher-created survey instrument. The *Rabbath Method* Practitioner Survey (RMPS) was designed to acquire demographic data determining when current participants earned their diplomas from the *Institute*, where current Rabbathians teach, what genres of music current Rabbathians perform and teach, how many students each participant has taught using the *Method*, and what pedagogic and performance works current Rabbathians have created.

For data collection in part two of the study, the *Rabbath Method* Practitioner Questionnaire (RMPQ) was designed to collect data reflecting how current Rabbathians apply philosophical and technical tenets of the *Method* in pedagogic and performance practices, and how current Rabbathians are maintaining philosophies and developing technical and pedagogical applications of the *Method*. Further data was garnered through open-ended questions to assess how current Rabbathians view the assimilation of the *Method* into the public-school setting and the role of improvisation in pedagogic and performance practice, an integral tenet of the *Method*. The questionnaire was designed to avoid word bias as well as question-order bias. Participant anonymity was chosen to minimize risk of any harms that might occur from exposing identifiable private information. According to Kraut et al. (2004):

"We believe that a greater risk of harm in online research comes from possible disclosure of identifiable private information outside of the research context, not from the experience of participating in the research itself. The identifying information can include records of statements,

attitudes, or behaviors coupled with names, e-mail addresses, partially disguised pseudonyms, or other identifying information."

Therefore, pseudonyms were applied to each participant's questionnaire response in the form of random initials.

For data collection in part three of the study, the creator and author of the *Rabbath Method*, François Rabbath, was interviewed via digital online FaceTimeTM software. Data reflecting the philosophy and pedagogy of Rabbath were collected initially from the complete writings of Rabbath, found in his five-volume Nouvelle Technique de la Contrabasse. Further data were realized through the researcher's transcriptions of interviews found in the two-part DVD series, Art of the Bow and Art of the Left Hand, by permission of the producers of the series, Dr. Hans Sturm and François Rabbath. Data from the Rabbath interview via FaceTimeTM were realized by the researcher's transcription of the interview, with permission. The researcher's practice of the *Method*, guided by Rabbath for thirty-seven years, further informed the current study to provide a basis for interpreting data. Data from part three further clarified findings from the participant questionnaire that could determine the most concise iteration of a Rabbathian according to Rabbath and his apprentices and what future research might be done to assess and develop philosophical and pedagogic tenets of the *Method* from the following questions:

- 1. Can or should the techniques and philosophies found in the Rabbath Method be assimilated to a public-school (PS) setting?
- 2. What is the philosophy and role of improvisation as expressed from the *Method?*

3. What future research could help further clarify and maintain the technical and philosophical tenets inherent in the *Method* and possibly reveal new tenets inherent in the *Method* as yet undiscovered?

Reflection on the researcher's encounters with Rabbath in private lessons and master classes further informed the current study and provided first-hand experience as basis for interpreting the data acquired from participant responses.

Distribution of Instrument and Collection of Questionnaire Data

A digital internet-based strategy was created to locate and engage current Rabbathians by e-mail addresses from a data base of member contact data provided by the International Society of Bassist (ISB) and through Facebook™ searches, request participation in the study, and invite participants to view and assess a web page domain explaining the details of the research. A web site titled, Rabbathian Research Project, was designed by a web developer and the researcher, using the web site development software Wix®. Five web pages were created:

• A home page greeting the participant with explanation of where the researcher acquired their name and a very brief explanation as to why the participant was identified for the study (see appendix I).

The home page contained links to the following pages:

- A page containing a current bio of the researcher (see appendix J).
- A research synopsis page (see appendix K) detailing the purpose of the research.
- A link to the Kansas City Workshop page containing a bio and overview of the
 activities of François Rabbath approved by the founder of the KC Bass Workshop
 and owner of the domain, Johnny Hamill.

 A RMPS/RMPQ page presenting the survey and questionnaire for participant completion. (see appendix L).

A pilot study informed the design of the questionnaire and its' validity. A diverse pilot group of five participants who teach in Universities and Public Schools in the United States was solicited to view the web site from the home page URL and complete the RMPS and RMPQ in order to test the functionality of the web design, assess validity of the questionnaire, determine its effectiveness, and provide feedback for any necessary additions or changes. After a review of the questionnaire results from the pilot group and the pilot group's commentary about the web design and questionnaire, edited and final versions of the web pages and questionnaire were prepared to make available to the study participants. Participants were asked to answer all questions as briefly or specifically as appropriate in order to promote concise yet thoughtful responses. A link was embedded in the questionnaire that the participants selected to return the completed questionnaire to the research web site. Embedded in each page was a question/comment link where the participant could ask for any clarification or comment on the web site pages, including the RMPS and RMPQ.

Mixed Method Approach to Analysis

Quantitative data from responses to the RMPS were analyzed to determine trends in the performance and pedagogy practice of participants that might inform conclusions based upon nominal, ordinal, and interval levels. Qualitative data from responses to the RMPQ were analyzed to expose emergent themes. According to Strauss and Corbin (1998), qualitative research is meant to be, "any type of research that produces findings not arrived at by statistical procedures or other means of quantification." As cited in Hill,

Thompson, and Williams (1997), Eisner (1991); Miles & Huberman, (1994); and Polkinghorne (1994) agreed that "a primary feature of qualitative research is that it provides a vivid, dense, and full description in the natural language of the phenomenon under study." In *reflexive ethnography*, according to Ellis and Bochner (2000): "the researcher's personal experience becomes important primarily in how it illuminates the culture under study. Reflexive ethnographies range along a continuum from starting research with one's own experience to ethnographies where the researcher's experience is actually studied along with other participants, to confessional tales where the researcher's experiences of doing the study become the focus of the investigation" (p. 740). "Many feminist writers have advocated starting research from one's own experience (e.g., Smith, 1979). Thus, to a greater or lesser extent, researchers incorporate their personal experiences and standpoints in their research by starting with a story about themselves, explaining their personal connection to the project, or by using personal knowledge to help them in the research process." (p. 741)

The researcher in this study experienced the *Rabbath Method* as one of those who studied closely with François Rabbath and has performed and taught from the *Method*. This experience informed the interpretation of data garnered through the study.

Likewise, it can be assumed each participant's experiences and practice with the *Method* informed their personal description of the techniques, pedagogy, and philosophies contained in the *Rabbath Method* as described by Rabbath. Data from the current study, coded and developed into themes, may enable the reader to draw conclusions based upon the lived and shared experiences of participants, the researcher, and the Author of the *Method*.

From a grounded theory framework, the transcribed questionnaire responses and interviews were coded using open coding data and axial coding analysis procedures (Creswell, 2013) in order to expose and develop categories or *themes* that present explanations of the techniques, pedagogy, and philosophies currently preferred by participants. These categories further developed a theory that may explain how the Rabbath phenomenon is currently manifest in the field of applied bass and how the *Method* might or might not be assimilated into other areas of music pedagogy such as improvisation and public-school music programs from the viewpoint of Rabbath and Rabbathians.

Limitations and Delimitations

Data acquired from self-report methods present considerations for the researcher to take into account. Participants' abilities and/or willingness to be candid cannot be controlled by the researcher. It is possible participants are influenced by their self-image, their ability to be introspective, and understanding of questions being asked of them. Participants (N=24) represent 52.33% of all current diploma holders of the *Institute* who were invited to participate in the study (N=45), a little more than half of the total population of Rabbathians. The results of this study cannot be accurately associated with all first-generation Rabbathians nor their students.

Lastly, it should be reiterated that the researcher is a Rabbathian, identified as one holding Diplomas from the *Institute*, as issued by Francois Rabbath. Careful steps were taken to reduce personal bias as much as possible; the researcher focused on the raw, coded, and organized data in a way that presented themes established by the scientific method. Analyses and interpretations of data were informed through literature from

related fields of inquiry. Explanations for emergent themes, as well as individual and outlying data points, are presented as possible and not conclusive interpretations.

CHAPTER IV - DATA REPORT AND DISCUSSION

The current study traces the initial lineage from François Rabbath through his first-generation apprentices to determine how the *Rabbath Method* is currently applied by double bass performers and pedagogues who studied closely with the author of the *Method*. The decision was made to structure this chapter by reporting data garnered from the returned survey and questionnaire followed immediately by discussion. Such may allow for a more synthesized view and possibly, clearer understanding of concepts and components found within the collected data. Quotations from participant survey and questionnaire responses, interview responses from *Art of the Bow and Art of the Left Hand* (Sturm, Rabbath, 2005; 2011), and the researcher's interview of Rabbath are presented in single-spaced format while citations from the literature remain double-spaced.

In general, participants' responses to the researcher-created survey/questionnaire reveal that Rabbathians exhibit a wide range of performance idioms and genres. While Rabbathians demonstrate congruence of attitude and application of many philosophical and pedagogical tenets of the *Method*, pedagogic terminology is not always used similarly from pedagogue to pedagogue.

Quantitative Data

What Year Did You Earn the Diploma of the Institute?

The initial question was included to give the reader perspective on the age of participants and the youth of the *Method*, and to provide data for further analysis regarding various aspects of the history and distribution of diplomas from the *Institute*. The complete number of diploma holders from the Institute totaled 47 at the time of the

study. The researcher and a committee advisor for the research project were removed from the sample leaving a final total (N= 45). Table 1 shows the earliest Rabbathian graduate from the *Institute* was KV in 1983. The most recent graduate respondent was VNP (2015). Table 1 further reveals an output of graduates of the *Institute* for thirty–seven years reflecting Rabbath's consistency in developing Rabbathian pedagogues and performers.

Table 1

Vear Farned: Diploma of the Institute International de Contrabasse François Rabbath

Rabbathian	Year
KV	1983
PG:	1985
YT:	1989
QD:	1990
QNr:	1990
NU:	1991
SI:	1993
HL:	1994
ZS:	1995
MD:	2000
RYQ:	2000
XV:	2002
XWQ:	2005
GY:	2007
WZN:	2008
VP:	2009
WI:	2009
OT:	2010
KX:	2011
NP:	2012
QN:	2013
RM:	2014
HH:	2014
VNP:	2015

Note. Gaps in years of student graduates may be attributed to non-responses of potential participants.

Perhaps due to the acceptance of the *Method* in the United States, as evidenced by Leavit's study (Leavit, 1999), a majority of Rabbathians (48%) come from the U.S. Diploma holders come from 14 countries and from 5 continents with the majority (60%) from the continent of North America. Table 2 reveals where, globally, diploma holders are citizens.

Table 2

Institute Diploma Holders by Country

Country	Diploma holders	
U.S.	23	_
CANADA	3	
FRANCE	5	
AUSTRALIA	5	
GERMANY	2	
GREAT BRITAIN	1	
BRAZIL	1	
ARGENTINA	1	
ITALY	1	
DENMARK	1	
KOREA	1	
JAPAN	1	
IRAN	1	
MEXICO	1	

Where do You Teach? Please Include all Organizations or Teaching Situations.

The purpose of the question intended to assess dissemination of the *Method* in academia and in the public domain. Responses reveal participants teach on four continents and several participants teach in more than one country as full-time Professors and instructors or artists in regular shorter residences and master classes. Participants have taught in Public Schools, universities, colleges, conservatories, and academies in the United States, Canada, Australia, Europe, and the U.K. Four participants created Rabbath Institutes or summer camps in the U.S. while others teach at these institutes.

Nine participants maintain private studios. Three participants reported they do not actively teach, responding that currently, they perform full-time. Five participants coach youth orchestras in the U.S. and Australia. Five participants reported they teach in Public School, two as full-time specialists and three as adjuncts. Table 3 shows the number of each participants' current teaching environments.

Table 3

Rabbathians Professional Teaching Summary

Teaching Summary	Responses	
US Universities and Colleges	7	
US music Conservatory	1	
US Public School-Full-Time	3	
US Public School-Adjunct	2	
US Schools of music	1	
US Youth Orchestra	1	
US Academy	2	
Australian Universities and Colleges	4	
Australian Conservatories	1	
Australian Public School	2	
Australian Youth Orchestra	4	
Canadian University	1	
Canadian Conservatory	1	
Canadian Academy	1	
UK Colleges	2	
UK Academy	2	
UK Public School	1	
Private Studio	8	
Camps	5	
Camp Director	3	
US Rabbath Institute Director	2	

Note. Participants in the current study teach in four countries on the primary, secondary, and tertiary levels and in conservatories and Academies. Five participants teach at double bass camps in the US. Three participants have been Directors of US Rabbath Institutes.

What Genres of Music do You Play Professionally?

Identifying how participants are manifesting their performance training professionally revealed the eclecticism of Rabbathians, who perform in 29 genres

including conductor. Baroque orchestra to Avant Garde, modern film composing, and Electro-acoustic performance including technology support, reflect Rabbathians' participation in a wide and diverse field of traditional and modern performance genres. Until the second half of the 20th century most double bassists performed in classical, jazz, or folk/indigenous genres of music. Four participants responded Classical only while 12 identified Classical among multi-genre performance areas. Another described sub-genres of the broader term, Classical (symphonic, baroque orchestra, chamber music). Data suggests Rabbathians perform in a wide variety of musical genres. Table 4 shows the performance genres practiced professionally by Rabbathians.

Table 4

Diversity in Performance Practice of Rabbathians

Genre	Responses	
Classical	22	_
Symphonic	16	
Chamber Music	7	
Conducting	1	
Contemporary, New Music	9	
Live Looping	1	
Solo Recitals	6	
Free Improvisation	7	
Period Performance, Baroque	3	
Opera	3	
Jazz	8	
Text-Based Avant-Garde	2	
Rock	5	
World Music	2	
Concert Band, Wind Ensemble	2	
Klezmer	1	
Original, Own Music	3	
Tango	1	
Bolivian	1	
Sound Meditation	2	
Baroque Orchestra	1	
Folk	1	

Table 4 (continued)

Pop	1
Film Composer	2
Hardcore Punk	1
Creative Music	1
Singer/Songwriter	1
Table 4 (continued)	

Afro-Cuban 1

Note. Typically, most double bassists trained in formal settings such as colleges and universities, play classical and/or jazz. Data suggests Rabbathians perform in a broad

spectrum of genres.

Average mean of participants' performance genres is 3.6. Sixteen participants identified two or more performance genres with 8 identifying their performance practice as from genres of the classical idiom: *classical, symphonic,* or *orchestra*. Responses identify pairings with other popular styles and orchestral with chamber music. Several participants identified extremes of genres, for example, VP responded, "Classical and Hard-Core Punk" and HH, "Classical and Jazz.". Typically, the double bass is grounded in classical settings and older popular traditions and ethnic styles. Eight responses reflect participation in technology-based genres including film music, live-looping, rock, and recorded music.

Approximately How Many Students Have You Taught Using the Rabbath Method?

Data provided from the question reflect the scope of dissemination of the *Method* through the teaching of Rabbathians. Table 5 reveals that at the time of this study the *Method* has possibly been taught to thousands of double bass players globally.

Table 5

Approximately How Many Students Participants Have Taught Using the Method

Response

WZN: 100

Table 5 (continued)

GY: 40 VNP: 5 KX: 10

XWQ: At least 500 KV: Hundreds XV: 150–200

NU: 10 OT: 200

YT: hundreds to over 1,000 at clinics, camps, and workshops privately

RM: 600. 30 on average from 1998/30x20=600"

ZS: 100, a vague guess, I've been teaching a long time

RYQ: 15 VP: 6 NP: 6 QNr: 100 NQ: 10

HL: Hundreds PG: 100+ SI: 100 WI: 50

HH: Hundreds

MD: 50 Private, 250 at camps

QD: 50

Note. Although NU reported only having taught 10 students using the Method, the fact that he received the diploma in 1991 prompted the researcher to follow up in an e-mail for clarification. In the return e-mail NU reported, yes, 10 at university level. I suppose I could say another 10 young ones. I tend to use George Vance stuff for real beginners, or material of my own; but everything I do is influenced by François, even washing the dishes! I don't like to have more than one or two students at any given time. I don't teach for a living."

It should be pointed out that most responses appear to be estimates, thus a specific number of students is not reported here but rather an amount "in the thousands" is offered. The question was offered to garner data that might show the *Methods* early global dissemination and potential for further dissemination by current Rabbathians and future students of Rabbathians. For most participants, the number of students each has taught correlates to when they received the diploma of the *Institute*. While this

correlation is reflected in most participant's teaching experience, NU's response of 10 students taught in the period between 1993 and 2016 compelled the researcher to follow up in an e-mail to confirm the response (see Table 5 *Note*.).

From Which Volumes of the Method did You Study With Rabbath?

From Which Volumes of the Method do You Teach?

Two questions were asked to generate data that could show congruence for specific repertoire from the *Method* participants studied with Rabbath and which are employed in teaching. Data might reveal trends in choice of repertoire. Table 6 shows from which volumes of the *Method* participants studied with Rabbath and from which they teach.

Table 6

Year of Study, Volumes Studied with Rabbath, and Volumes Used in Teaching

Year	Studied	Teach
KV:1983	1,2,3,4,5	1,2,3,4,5
PG:1985	1,2,3,4,5	1,2,3,4,5
YT:1989	1,2,3	2,3
QD:1990	1,2,3	1,2,3
QNr:1990	1,2,3	1,2,3
NU:1991	3	1,2,3,4
SI:1993	1,2,3	3
HL:1994	1,3	2,3,4,5
ZS:1995	1,2,3	1,2,3
MD:2000	1,2,3	1,2,3
RYQ:2000	1,2,3	1,2,3,4,5
XV:2002	3	1,2,3
XWQ:2005	1,2,3	1,2
GY:2007	1,2,3,4	3
WZN:2008	2,3,4	1,2,3,4,5
VP:2009	1,2,3,4	1,2,3,4,5
WI:2009	1,2,3,4	1,2,3,4
OT:2010	1,2,3	1,2,3,4,5

Table 6 (continued)

KX:2011	1,2,3,4	N/A	
NP:2012	1,2,3,4	3	
NQ:2013	1,2,3,4,5	1,2	
RM:2014	1,2,3,4,5	1,2,3,4,5	
HH:2014	1,2,3,4,5	1,2,3,4,5	
VNP:2015	1,2,3,4,5	1,2,3,4,5	

Four participants studied and teach (currently) from all five volumes of the *Method*. Three participants teach entirely from the third volume. The third volume is the physical training volume that contains taxonomies of left and right arm gestures. The exclusive use of this volume in teaching may reflect participants' application of the *Method* for physical training for bass playing and not for repertoire training. Fourteen participants indicated they teach from volumes one, two, and three. Those volumes contain the training materials for the six positions as expressed in Rabbath's theory of the fingerboard. Nine participants teach from volumes including four and five which contain advanced pedagogic and concert repertoire.

Do You Include Repertoire of the *Rabbath Method* in Your Performance and/or Your Students' Performances? Which Repertoire do You Prefer?

Identifying repertoire from the *Method* most preferred by Rabbathians suggests pedagogical choices for performing and teaching. Three participants answered "no" with RYQ reporting, "not any longer, I play only my own." The three reported earlier that they do not currently teach. Five responded in the affirmative with no further reflection on examples. Two participants responded, "a wide variety", and MD responded, "a wide variety from 10 petit etudes to concert pieces." OT responded, "yes, whatever is appropriate for the student or the audience." Most favored pieces identified were,

Ibèrique Péninsular-5, *Thanatos-4*, and *Poucha Das-4*. KV's response was the most detailed and might suggest favorite pedagogic choices of Rabbath repertoire for teaching as the data is ordered:

Yes regularly. There is beautiful recital appropriate repertoire in each volume: Vol. I-No. 10, Vol. II-Nos 14, 19, 20, 21 Vol. III-Cyril, Gigue, Ordis, Thanatos, Multiple Facets, Voyage. Vols. IV and V are filled with and largely comprised of wonderful performance pieces.

The information suggests that early repertoire from the first two volumes of the *Method* are appropriate for public performance. Table 7 shows responses as to repertoire from the *Method* most preferred by participants. Full responses are included to reveal the richness, variety of types of responses, and their lack of or inclusion of detail. Detailed responses might provide the reader with ideas for pedagogic strategies from the lens of Rabbathians that could inform future performance and pedagogic interpretations of the *Method*.

Table 7

Participants' Preferred Repertoire from the Method

Full Response

WZN: Poucha Dass, Iberique Peninsulaire, War and Peace, L'infinite Martine GY: Almost every recital I've ever given has included Rabbath piece. Lately, I've been partial to performing the Rhapsodie from Volume 4, but have also performed most of the pieces from Volume 3 and several of the others from Volume 4. I've also done some of the individually published pieces like Concerto 3 and Incantation pour Junon. I've given students Incantation pour Junon, Etude Atonale, Voyage and Ordis. As I mentioned above, most of the kids I work with regularly are still in high school or younger, so we often haven't worked long enough to get past these pieces. I would love to teach more of them, though.

VNP: Yes. I performed these pieces in my degree recitals at (. . .): Ibèrique Péninsulaire La guerre et la paix Poucha-Dass Concerto No. 3 pour contrebasse et piano XWQ: Ode de Espagne, Ibèrique Péninsulaire

Table 7 (continued)

KV: Yes, regularly. There is beautiful recital appropriate repertoire in each volume. Vol I No 10, Vol II No 14, 19, 20, 21) Vol III Cyril, Gigue, Ordis, Thanatos, Multiple Facets, Voyage. Vols IV and V are filled with and largely comprised of wonderful performance pieces.

XV: I use Vol II studies a lot. Ode de Espagnia, Ibèrique Péninsulaire, pieces from Vol 5.

NU: Yes, I perform all the solo pieces (from the solos book) the two miniatures (Junon and Reitba) Bach. Students play all repertoire, including technical studies and pieces from Vols II and III.

OT: Yes, whatever is appropriate for the student or the audience.

YT: Yes, Ibèrique Péninsulaire, Poucha Das, Cri de Venice, Reitba, Thanatos, Kobolds and several others.

RM: Every concert has Rabbath pieces.

ZS: Rabbath Bach cello suites editions, Poucha Das, Ode de Espagne, Reitba, Incantation por Junon, L'odysee D'eau, Kobolds, Briez, Thanatos.

RYQ: Not any longer, I play only my own compositions (does not currently teach).

VP: Sure, contemporary rep suits me best.

NP: I still perform some of his music when I play for children and in retirement homes.

Briez, Ode D'espanga, The repertoire I prefer is much more avant-garde.

ONr: Yes. From book 3; Gigue, Thanathos, Étude Atonale.

NQ: No.

HL: I have performed several publicly. My favorite, because of the sentiment, is the piece he dedicated to me in the IV book.

PG: Yes.

SI: Occasionally.

WI: I use a wide variety including pieces & etudes from all V volumes. I prefer different rep for different purposes and experience levels.

MD: A wide variety from 10 Petit etudes to concert pieces.

QD: At the University level, in the technical exam, all students perform a Rabbath study from the level they are working on. In recitals, solo pieces are often performed.

From Which Double Bass Methods Other Than Rabbath do You Teach, if Any?

Responses to the question revealed most Rabbathians are not limited or restrictive to the *Method* in their choices of materials for teaching. Table 8 identifies 30 different published methods or collections of training materials for double bass used in teaching by Rabbathians.

Table 8
From Which Other Method Books Participants Teach

Author/Method Book	Count
David Allan-Moore: Fractal Fingering	2
Australian Examination Board Double Bass Syllabus	2
Issiah Billé	1
Bottesini Method	1
Jeff Bradetich: Double Bass: The Ultimate Challenge	1
Ray Brown: Bass Method	1
Caroline Emery: Bass is Best	2
Emery: Bow Works	4
Flesch: Scale Sequence	1
Galamian	1
Giolav: The Double Bass	1
Barry Green: Advanced Techniques	2
Barry Green: Popular Bass Method	1
Murray Grodner	1
Joseph Hrabe	1
Eugene Levinson	1
Marcos Machado: Tao of Bass	1
Edourd Nanny: Method	1
None	2
Fransesco Petracchi: Simplified Higher Technique	2
Joel Quarrington: Canadian Bass Method	1
Hal Robinson: Boardwalkin'	4
Hal Robinson: Strokin'	4
Rufus Reid: The Evolving Bassist	2
Franz Simandl: Method	4
Janos Starker	1
George Vance: Progressive Repertoire	12
George Vance: Vade Mecum	1
Frederick Zimmerman: Contemporary Concept of Bowing	1

Note. Two responses of "none" were qualified with, "I don't currently teach. 2 responses of none were not qualified and may be interpreted as the two participants do not use any other method books in teaching.

Simandl New Method, Robinson *Strokin'* and *Boardwalkin'*, and Emery *Bow Works* were identified 4 times. Vance *Progressive Repertoire* appears to be the most preferred supplemental material as it was identified by 50% of participants. As revealed in the literature review, George Vance was a pupil of Rabbath and created Progressive

Repertoire to include techniques, pedagogy, and philosophies of Suzuki and Rabbath. In order to further develop possible pedagogic strategies from the practice of Rabbathians, table 9 was included and contains full participant responses.

Table 9

From Which Other Method Books Participants Teach

Full response

VP: None. At the moment, none (I'm a full time player, don't teach)

MD: Contemporary Concept of Bowing (Zimmerman), Starker, Organized String Method, Allan-Moore Fractal Fingering, Quarrington, J Canadian Bass Method HH: A wide variety including: Vance (Progressive Repertoire), Quarrington, Green, Petracchi, Galamian, Flesch, Bradetich, Goliav, Wolf, Grodner, Levinson, O'Brien, Emery, Machado

KV: A large, inclusive collection of methods and pedagogical materials from which is chosen appropriate & indicated material based on need, curiosity or the study of particular repertoire. All my students (and I) study the D Allan-Moore Fractal Fingering. Bow works by Caroline Emery is a must for beginning students

OT: None

GY: Vance (Progressive rep and Vade Mecum), Robinson's Boardwalkin' and Strokin'. I occasionally reference concepts from more traditional methods (Simandl etc) But only once a student has gotten used to a certain point with their understanding of the Rabbathian approach to playing. A lot of people I work with day-to-day come from more traditional backgrounds, so I've made an effort to keep an open mind and try to pull what I can from Billé, Simandl and other older methods in that vein. It's been helpful for understanding the benefits of Rabbath's technique, and it has informed my orchestral playing especially.

KX: Vance

YT: My own book (. . .) and the (. . .) 3d vol, is solely based on Pivot System and includes Rabbath nomenclature.

(Based on Rabbath positions and Vance Method) I also use some Petracchi and exercises from my bass camp and the Rabbath institute 1977 to present.

XV: Emery: Bow Works, Emery: Bass is Best vols I and II, Bottesini: Method

NU: I use a little bit of George Vance with beginners. Not much else.

RM: George Vance, Simandl, Hrabe, Nanny are the main three but I have many to hand the student that needs extra work in reading skills. I do believe in stressing the (Rabbath) scale cycle and solo bass materials makes the student able to play most things in the (other) etude books. Rufus Reid, Ray Brown method The real book are used for jazz studies. Abersold books are sometimes appropriate.

Table 9 (continued)

ZS: Rufus Reid "the Evolving Bassist"

RYQ: None (I practically don't teach anymore)

VNP: Emery Bow Works, Emery Progressive Technique for the Double Bass, Vance Progressive Repertoire and Vade Macum

XWQ: Vance Progressive Rep 1–3

NP: I mainly teach from the George Vance books. Robinson Boardwalkin and Strokin'. Boardwalkin' was clearly an extension of ideas that come from the Rabbath technique.

WZN: Strokin' and Boardwalkin' by Hal Robinson.

NQ: I don't know how I feel about methods/cannons of technique and teaching, to be honest. I do not tend to use methods when I teach. I pull from a vast encyclopedia of imagery, ideas, exercises, and philosophies to give the student what I perceive they need in the moment, as my teachers did for me. Perhaps I have less experience than many people filling out this questionnaire.

HL: Excerpts from many, but most consistently: Robinson's Strokin', George Vances Progressive Repertoire.

PG: Mainly the George Vance books but I also take from various others including the Australian Music Examination Board Double Bass syllabus.

SI: None

WI: Vance Progressive Repertoire

QD: Progressive Repertoire, individual studies from many different sources.

Note. Two responses of "none" were qualified with, "I don't currently teach. 2 responses of none were not qualified and may be interpreted as the two participants do not use any other method books in teaching.

One participant indicated that they teach from the *Method* exclusively. Several

participant's responses suggest teaching strategies:

RM: George Vance, Simandl, Hrabe, Nanny but I have many to hand the student that needs extra work in reading skills. I do believe in stressing the (Rabbath) scale cycle and solo bass materials makes the student able to play most things in the (other) etude books. Rufus Reid, Ray Brown method, and The Real Book are used for jazz studies. Aebersold books are sometimes appropriate.

and:

GY: Vance (Progressive rep and Vade Mecum), Robinson's Boardwalkin' and Strokin'. I occasionally reference concepts from more traditional methods (Simandl, etc.) but only once a student has gotten used to a

certain point with their understanding of the Rabbathian approach to playing. A lot of people I work with day-to-day come from more traditional backgrounds, so, I've made an effort to keep an open mind and try to pull what I can from Billé, Simandl and other older methods in that vein. It's been helpful for understanding the benefits of Rabbath's technique, and it has informed my orchestral playing especially.

GY's response indicates practice of the *Rabbath Method* may be informed by material from other methods, possibly suggesting how to alter techniques from the *Method* for specific applications or genres.

Have You Created Your Own Double Bass Methodology, Compositions, Arrangements, or Editions of Repertoire? Describe.

Answers to this question reflect in part how Rabbathians manifest their divergent and creative thinking for composition and pedagogy. Three participants responded they have not created new materials, while two indicate they are currently working on items for publication. Data reflect a wide variety of output from Rabbathians of technical studies, etudes, solo, and chamber music. Several participants compose for double bass and electronic instruments. One participant performs live-looping with bowed double bass. Three participants indicate that as improvisors, they create new music. Full responses give a context as to the creative and divergent thinking of Rabbathians by explanations of the content reasons for creating new repertoire for playing and learning the double bass. Eighteen participants have created performance and/or pedagogic repertoire. Two participants indicate they have thought of and plan to create new repertoire for the bass. Only one indicates never having created or thought about creating new repertoire. Table 10 shows indicates a majority (75%) of Rabbathians create their own materials for teaching and performance.

Double Bass Repertoire Created by Participants

Full response

MD: Yes, scale cycle with tonal harmony audio accompaniment, (. . .) dominant to tonic harmonic hand frames, (. . .) for Solo Bass designed as a self-pedagogy to learn *Rabbath Method* and Son Premier, (. . .), a string crossing etude/piece.

HH: Technical, scale, and arpeggio methods, numerous compositions in various styles (jazz, new music, electronic music, world music), and transcriptions from a variety of sources (jazz, classical solo, and chamber music).

KV: The presentation of each student(s) determine the course of study and growth. Everything suggested and whatever else is appropriate should be combined and considered by the student and teacher—the student—who becomes the teacher. The more broad the range of music the better.

VP: No. not in a while

OT: Yes. I have a book of compositions titled: '(...): 12 Unaccompanied Pieces. It evolved from my work with Rabbath and as a certified Music Practitioner.

GY: I haven't developed a systematic methodology of my own, but am working on the concept of linking fingering choices to musical phrases (I talk about it in my teaching). Transcriptions of pieces written for other instruments.

KX: A few things, usually etudes. Also a scale system based on Boardwalkin'. Nothing published-mostly for personal use.

YT: The (. . .) Method based upon jazz, folk, classical, rock, blues, and funk duets.

XV: My own books (see previous), Chamber music for bass

NU: Scale method, Bach, new compositions

RM: I arrange lots of things for students. I published an improv method that goes with the Vance books (. . .) vol I Large bass orchestra pieces for the students to play in concerts. Some are original works of mine.

ZS: Graphic Scores, Jazz improvisation tunes for small ensemble

RYQ: I play my own compositions, typically live-looping, at stage as soloist and with other musicians/singers/artists. Also, working as a film composer, where I often play/record every voice/track on the bass.

VNP: "(...)": A Bass Octet

XWQ: No, but I'm planning to

NP: I am a composer and improviser, so I have developed many techniques that I use in my own creations. I have written many works for bass, and bass with ensemble, and much of the techniques are developed by me.

WZN: (. . .) (technique book)

NQ: I've written about 30 compositions for myself, voice and bowed bass.

Table 10 (cont.)

HL: Bach suites, Technical exercise book, Several arrangements and short pieces and improvised performances (some using electronics).

PG: I often adapt studies to suit a students need. I also have arranged songs and studies from other instrumental repertoire.

SI: I have published (...) and (...) and have an edition of Bach Suite #1 out there.

WI: I have created some bits and pieces. Some work on jazz standards, I occasionally teach my own compositions, and I curate and modify some aspects of Rabbath's scale studies for my students.

QD: No

Quantitative data was gathered to create a contextual view of participants' performance and pedagogic background and strategies as well as their history with the *Institute* and Rabbath, current teaching environments and history, preferred teaching and performing repertoire, and participants' repertoire creation. Suggestions, rather than conclusions, for pedagogic and performance choices emerged from data presented. The following qualitative data are from responses to open ended questions of the RMPQ that were later coded to develop themes to describe participants' philosophical and pedagogical attitudes. Responses were further analyzed to identify: congruences to Rabbath's philosophies and pedagogy, actions as pedagogues, and describe encounters while studying with Rabbath that inform their experience as double bassists and pedagogues.

Qualitative Data Acquired From the RMPQ

Can or Should the Techniques and Philosophies Found in the *Rabbath Method* be Assimilated to a Public-School (PS) Setting?

Rabbathians' views on the transference of philosophy and pedagogy from the *Method* may serve as valuable data when assessing the feasibility of a broader application of the *Method* in current public-school curricula.

In the early years, the *Method* received pushback from double bass performers, pedagogues, and students as it developed (Greenberg, 1999, pp. 60–61). Since receiving the Isaac Stern Lifetime Achievement award from the American String Teacher's Association (2006), some of Rabbath's techniques for bass, specifically the pivot, have been assimilated to classroom string programs in the US (Erwin, Horvath, McCashin, Mitchell 2006; Fischbach and Frost, 2003). Still, it appears examples of a broader application of pedagogy and philosophies found in the *Rabbath Method* to various string education settings is elusive and suggests research and development of a classroom approach might be warranted. Data from participants' reflections on this question may provide guidance from their opinions toward assimilation of the *Method* in public-schools, pedagogic suggestions for how, and possible impediments that could emerge.

KX's response, "I'm not qualified to answer this, right now I am a full-time performer" is an outlier. Every other response was interpreted as affirmative. That "yes" was stated 11 times, "absolutely" 3, "sure" 2, "of course" 2, "definitely" and, "sometimes and yes", indicates near consensus of the opinion that the *Method* can and should be assimilated into the PS music setting. YT is of the opinion that the *Method* would assimilate broadly rather than just to double bass pedagogy: "Bowing principals, standing

position, left hand technique, scale positions, crab technique, and musical philosophies are all applicable to all string instruments and do not conflict with current pedagogy."

GY responded, "Yes. I believe the techniques would be great for all string players' students to have some exposure to, especially the approach to learning the bow," and PG's response, "Yes and I think it could apply to all string players" advocates for the *Method's* broader application. Participant reflections exposed perceived deficiencies in the pedagogy and philosophies found in some public-school string programs. WI, who responded to the RMPS as having been a public-school teacher, gave insight into the state of bass pedagogy he has encountered in US public school string programs and suggests the need for a better approach:

Sometimes and Yes. It requires someone with sufficient training to do so (which is saying a lot) but the current public-school double bass pedagogy I have encountered is abysmal and often creates pretty deep problems for the students including low self-expectations on the instrument.

WI's statement suggests that for successful assimilation of the *Method*, pre-service methods classes for music education majors that provide pedagogical training including both technical and the psychological aspects may help avoid the "deep problems" the participant has witnessed. From WI's lens as a Rabbathian, the response might further suggest that a philosophical basis for pedagogy as modeled by Rabbath could contribute to a healthier environment for students and teachers.

As stated earlier, Rabbathian philosophy attempts to put the student's needs foremost: "The student, he is the King" (Sturm and Rabbath, 2005), and the teacher must always consider the student's condition taking care to communicate only what is necessary to help each overcome any obstacles that occur during study. Rabbath believes

playing the bass should be free from difficulty: "there are many things that are difficult in life but not the double bass" (Sturm and Rabbath, 2011). QNr's response reflects Rabbath's philosophy of making playing the bass problem-free for the student, from the beginning, "Of course, it makes it easier to play the bass especially for the beginner." This statement may get the attention of the PS string program director who, while possibly caring for the growth of their students, must justify the student's needs with performance ratings earned in the large ensemble setting at music festivals and contests. For, if the *Method* makes it easier for the student to play alone at first, then it might be easier later, as part of a large ensemble, to perform at a higher level.

Rabbathian philosophy, especially for young bassists, advises the teacher nurture the student's inner motivation perhaps avoiding competition with others. He believes outward competition develops a negative outlook toward others in the form of jealousy: "Don't be jealous. You must know that you are unique, definitely. You must know that you must not compete with somebody else. Compete with yourself. Be better than yourself (Sturm and Rabbath, 2011)." While this kind of philosophy promotes the child's emotional well-being, it also considers the child's communal role as an artist: "What is the music? It's when you play together. To share something, to say something one to another, together, to say something for the public. I think it's most important, it's love, love each other" (Sturm and Rabbath, 2011).

A pedagogy containing this type of philosophy appears to resonate with what Nel Noddings calls, "one caring." To reiterate Noddings teaching philosophy:

Clearly, in professions where encounter is frequent and where the ethical ideal of the other is necessarily involved, I am first and foremost one-

caring and, second, enactor of specialized functions. As a teacher, I am, first, one-caring. The student is infinitely more important than the subject matter. (Noddings, 2005)

Rabbath's philosophy suggests that the students *as a group* are be "infinitely more important," than the subject matter, for the benefit of the community.

NP suggests that, to assimilate the *Method* more broadly, string educators may need to re-consider the philosophy for pedagogy in public-school string programs: "The issue though is the way that the *Rabbath Method* focusses on the very beginning is not what PS orchestra programs focus on. An understanding of the two would have to be achieved." Rabbath states in the forward to volume I of the *Method*: "... the young player should rather begin his studies with higher aims – to become a soloist and to direct his efforts in that direction" (Rabbath, 1977). An understanding of the conflict between this Rabbathian philosophy and the philosophy that guides various string programs is explicated by RM who has taught in the public-school domain in the US:

The solo bass playing aspect of Rabbath makes it harder for the public-school setting. I feel like the orchestra teachers don't have time to address solo playing. Solo playing leads to virtuosity and instrument control. Orchestra is more about ensemble playing. The better programs have a solo and ensemble state program. The better orchestras spend time getting ready for this by having solo or chamber performances of each student during class time and presenting a concert of this material. If the program is set up like this then yes, I think it all should be used here. However, the experience of orchestra is special and a student who only plays solos sometimes doesn't learn to listen in context of playing bass in orchestra. François is probably one of the best listeners I've ever known. I think he would be the first to say that students need this experience as well. We should respect the role of the orchestra as an ensemble and the role of the private studio teacher for the solo aspects of the instrument. It's only bad when these two get confused.

It appears that for the *Method* to be successfully assimilated in the PS setting, the solo and ensemble paradigms would need to be integrated. RM suggests a solo performance recital could serve as preparation for the ensemble performance. However, this assumes there is solo repertoire available that reaches musical value appropriate for public performance. Many methods contain early repertoire that is mostly technical in nature and might lack musical values for public performance. As revealed by KV in response to question 3 of the RMPQ (see table 7) the *Rabbath Method* provides repertoire, from the first volume, that is appropriate for public performance. In the researcher's experience, a child can be prepared to play a short solo piece of Rabbath, that displays technical achievement and musical values, in public by the third or fourth week of study. QD's reflection reveals a strong opinion as to the quality and usefulness of repertoire contained in the *Method*: "Absolutely, as they encourage musicality and make even the beginning bass player able to perform in public." There seems to be agreement that to teach beginners in a way that develops what RM calls their "virtuosity and instrument control," through appropriate repertoire and solo performance from the beginning, is an effective pedagogy. It may be assumed that virtuosity and instrumental control is desired for excellence in ensemble playing. It follows that a method from which those outcomes may be achieved would be desired as well.

Participants' reflections reveal near consensus of the opinion that techniques, pedagogy, and philosophies contained in the *Method* may be assimilated more broadly for other stringed instruments and in curricula of the PS setting (see appendix A). Rabbathians in this study suggest an educator trained in the technique, pedagogy, *and* philosophy of the *Method* would be the best candidate to teach from a Rabbathian lens.

Most participants seem to suggest that the festival or competitive large ensemble environment that currently exists in most school orchestra programs would need to shift to a philosophy that makes time for better development of the individual.

What do You Consider the Most Important Philosophical Aspects Gained from Studying with Rabbath that Affect Your Teaching and Performance Practice?

Most participant responses reflect the psychological aspect for learning and playing the double bass. Coded data reveal Rabbath's philosophies of growth, potential for growth, developing individuality as a bassist, and development of the student's personality are main themes that evolved from participant responses (see appendix B). The development of the student's personality is reflected in the philosophical tenets, *Be Better than Yourself*, *Each One is Unique*, and *Throw Your Ego Away* (Sturm and Rabbath, 2005; 2011). Rabbath suggests in these tenets that ego driven attitude may be harmful to the growth potential of the student:

Psychologically, never make any kind of obstruction. If you want to be better, be better than yourself, never better than somebody else because, each one must have his own personality. You can never be better than somebody else but, better than you?....yes! every day. And you give hope forever. That is the psychology: you must know that nothing can stop you to becoming great. (Sturm and Rabbath, 2005)

The ego obstruction is the focus on what another does rather than on what concerns the individual. Bonnie Robson examined similarities in the competitive nature of sports performance and arts performance. Information from Robson's study exposed beliefs of stakeholders in those areas and suggested some appear to share the same concerns as Rabbath while revealing a psychological explanation for the phenomenon:

Opinions vary on whether competition is good or bad for the developing child. Some believe that competitiveness is innate behavior and that competition is a motivation for high achievement. Others believe that competition detracts from performance as the increased stress and anxiety lead to a decrease in focus and, perhaps, to a decrease in self-esteem, especially for individuals with an ego orientation (a focus on comparison with others) as opposed to a mastery orientation (focus on improvement of one's own skills). (Robson, 2004)

Robson's information might suggest the teacher or coach have the skill to identify a pupil's ego orientation so as to guide pedagogic strategies for individuals. However, an underlying philosophy like Rabbath's could be a motivating factor to develop a curriculum that shifts the competitive nature of performance entirely to the teacher and allow students to develop inner motivation through their own orientation. GY sums up the potential of these tenets in action:

I think there is a lot of wisdom in Rabbath's well-known sayings such as, 'throw your ego by the window' and 'each one is unique'. If you dig into the meaning behind these sayings, especially as it relates to his own self-discovery as a musician, they can become guiding forces for how to be, not only a great musician, but a more complete human being.

The tenet of *Throw Your Ego Away* is described further by Rabbath: "From the beginning, if you throw your ego away, everything will be perfect. Without your ego, you will learn" (Sturm and Rabbath, 2005).

VP's full response dissociates two of Rabbath's philosophical/psychological aphorisms, *The Word Difficult* and *Problem? What Problem?*:

As far as teaching, framing things positively rather than negatively.

Also, the idea of time, and the process of growth, over a period of years (time).

Rabbath describes these tenets in action in Art of the Bow:

I never say 'difficult'. It doesn't exist for me, the word difficult. It exists for everything else but not for the bass. What you cannot do today, you will do tomorrow. It is something the professor must know; never say, 'you have a problem'; never say 'it is difficult'. When he plays out of tune, accept it. You must play 'out of tune' to learn how to play 'in tune'. Then in the future, you will be better but, accept that you can make a mistake... For me, it is easy to come and say, 'look! I know. You must do it like that,' but how he can do it if he *doesn't know how* to do it? Or, if he doesn't have the time, he hasn't arrived at the time to do it, how he can do it? (Sturm and Rabbath, 2005)

Rabbath suggests how the teacher frames pedagogic vocabulary might allow the pupil to accumulate the amount of practice time needed to make progress unimpeded by doubt or self-judgement which may inhibit long-term growth. In pedagogy, these tenets could guard against the teacher using actions or vocabulary that could eventually diminish the student's self-worth. "When I teach I must be careful about every word" (2005, chapter 3). It appears Rabbath here resonates Pestolozzian concern for "education to be utilized as a means to provide dignity and self-respect to the people" (Mark, 2007).

Son premier might naturally be interpreted as a technical tenet of the Method since it involves bowing technique. But in response to this question identifying philosophical tenets, son premier was identified by 6 participants as a philosophical tenet. OT's response reflects how son premier may free the student's imagination so as to develop a creative spirit:

The idea that everyone can make a beautiful effortless sound on the double bass. The ideal to uphold the spirit and creativity of the individual without ever crushing the student's spirit. Each person is unique. The technique is designed to offer the technical freedom to create and be one's own unique self. 'It takes all the technique in the world to make one beautiful note, and then we must have something to say'.

That everyone can make a beautiful effortless sound on the double bass is an important statement. The double bass being the largest of the strings could infer larger effort may be required than for the violin. According to Rabbath, this is not so (Sturm and Rabbath, 2005). OT implies that making beautiful effortless sound could free the individual's imagination and let loose their creative spirit. It is possible that the pedagogy of *son premier* may allow the bassist to achieve a presence much like the voice of the violin. Expressions including effortless sound, beauty, spirit, and creativity reflect a distinct philosophy that might resonate with Dalcrozian philosophy and the aesthetic/praxial bases of Reimer and Elliott. Furthermore, such tenets may reflect a philosophy that believes in a human need for expression through music.

Rabbath's love of the bass is fundamental to his performance and pedagogy and his care for humanity and evidenced in many of his philosophical tenets. "Jouer pour faire plaisir (play to please), to give pleasure, is the highest philosophical aspiration" is the philosophy NU identifies as most important. In response to the current question ZS frames several Rabbathian tenets with "love" serving as the context:

The concept of approaching the instrument and learning music from the perspective of awareness, exploration, meditation, and love. When studying with François, this changed my entire approach to learning the instrument, which had been previously based on an overly competitive approach. It opened the way to have a conversation relationship with the instrument rather than trying to fight the instrument to make it do what I wanted. Creating a practice session based on the concepts of mindfulness, awareness and approaching them as a meditation was revolutionary in my own progress.

The response of ZS suggests a humane and healthy psychological, physical, and emotional relationship with the instrument. NU describes the effects of initially developing a less than healthy approach had on his well-being as an artist: "I'm still, aged 64, getting over some strange need for suffering in art making, but my lapses are rare now." That statement might suggest the transformative nature of pedagogic philosophy that is humane and holistic toward the physical and psychological nature of playing music. The following are responses that reveal the breadth of philosophy in the *Method* and how those who studied with Rabbath retain core philosophies in practice:

- XWQ: Focus on personal growth. Just do it. Don't be afraid to make a mistake. Do it beautifully and boldly.
- WZN: Honesty of music making and self-expression, non-competitive self-improvement, love.
- NP: François gave me the freedom to play the bass with ease and energy. This helped me then find my own path.
- HL: Where to start? To always improve and, be better than yourself. Each day climbing another step. You cannot be another person. While inspired by others, you must endeavor to be more yourself. It's all about the tone. To always make music. His purpose in performing (to make someone cry).
- SI: Ease of performance, joy of expression.
- WI: Everyone's potential for growth into their own being as a musician. Setting solid technical foundations (especially with the right hand) from the very beginning in order not to inhibit growth later on. A focus on individual development and artistry rather than on competition and external achievement.

Perhaps the most compelling response to the question is in PG's reference to Rabbath's philosophy of "love" and the "role of the Artist":

Lately I realize it would have to be Rabbath's emphasis on 'Love'. I used to think this was just François being François but I recently saw him address a group of young students. He explained the importance of their roles as 'True Artists' and that they have a responsibility to convey meaning and love through music. Over the last 33 years, I have seen him accept students of any age and ability without question, and he firmly believes that a musician can be a virtuoso at any age.

The early conditioning of children to think of themselves as artists resonates with a quote attributed to Picasso and others: "Every child is an artist. The problem is how to remain an artist once we grow up." In examining the philosophies of Rabbath it appears that, while the *Method* provides bassists technical solutions, pedagogic solutions, and stimulating repertoire to give to the public, Rabbath's greatest contribution could be in the philosophies he created that might help the musician/bassist retain their *artist child*.

Which of These Philosophical Aspects do You Emphasize to Your Students?

Nine participants responded to the question, "All;" however, the question sought to reveal whether participants identify specific philosophic tenets for their students and whether others should be left for the students' own discovery. Several answered "all" while further identifying specific tenets. Several also reiterated their response to the previous question (see appendix C).

VNP's response identified a philosophy of the *Method* (see Chapter VI, *Benefits* of *Exercise*) that could be componential in the kind of training Rabbath advocates for technical mastery of the bass:

I teach my students to maintain fitness as musical athletes, through proper strengthening and stretching exercises. More than philosophy, it is Rabbath's physicality while playing that I model for my students and encourage them to cultivate.

The teacher modeling physical aspects of playing the bass may help students better understand the dynamic relationship between the body and instrument while possibly avoiding risks of injury and over-use in training.

While most responses to question 8 were repetitions of the previous question or lists of Rabbathian aphorisms, GY gives a detailed response for *how* and *why* he applies philosophies in his pedagogy:

I try to instill in my students' curiosity, humility, and ownership of their musicianship that I hope will keep them interested and hungry for more not only between lessons but after we part ways. I do my best to help them discover their own musical voice and expressive potential and I hope they will take the inquisitive and open-minded approach we work on to the rest of their lives as well. More specifically, I do my best to keep my students directly engaged in the process of developing their technique and musicianship. I encourage them to make choices based on their own experiences and try to offer as many options as are appropriate while still exposing them to the traditions and ideas that are the basis of the various musical idioms they perform in.

While some responses to question 8 were "all," or repetitions of responses to question 7, the responses to both question 7 and 8 presented rich data that showed most participants had considered, reflected upon, and use philosophies of The *Rabbath Method* in their performance and pedagogic practices. Despite QNr's response that "knowing how to play the instrument is the philosophy" was not found in any other participant response and is not one of Rabbath's philosophical aphorisms, it is possible that fundamentally, the *Method's* content is directed toward "knowing how to play the instrument." Reflections indicate participants have regard for the philosophical aspect of the *Method*. HH appears to have fully integrated the philosophies of Rabbath in pedagogy: "After working with François for many years on pedagogical projects, I find resonance with virtually all of his philosophies and share them when appropriate." The researcher found that participants' responses to questions 7 and 8, and information revealed from Rabbath interview data, indicate a need to discuss philosophy further. Such is provided in chapter VI.

What do You Consider the Most Important Technical Aspects of the *Rabbath*Method that Affect Your Teaching and Performance Practice?

Responses to this question suggest what technical aspects of the *Method*Rabbathians apply in their own practice and which aspects may be of greater or lesser importance to their pedagogy. *The bow* was cited in 16 responses and *sound* in 8 others.

Right hand was included in 6 responses (see appendix D). These terms are interpreted as referring to bowing and, possibly further, *son premier*. If this interpretation is correct, 22 responses identified *son premier* as an important technical aspect of the *Method*. Data show that a wide majority of participants consider the bow and aspects of bowing to be an important technical tenet, maybe the most important technique of the *Method*. Several responses included psychological aspects of Rabbath's approach to the bass. For example, KV's response suggests application of psychological aspects from the *Method* might be considered important for the development of technique:

Understanding and being the master of your physical, emotional and mental self. Train your body and mind to respond ONLY to what you choose. Learn one aspect of one thing at a time and be patient. Learning takes as long as it takes. It is complicated greatly by forcing or insisting on immediate results.

The concept of including psychological conditioning as part of technique building may serve to develop consistent, reliable, yet flexible technique rather than mechanical, single-solution technique that if it fails, may cause disruption in performance or practice.

VP's response succinctly expresses the physical and psychological foundation through the technical lens of the *Method:* "Difficult to answer. One might say the bow, or pivot...I would say it's an understanding and consciousness of our body, mind, and interplay between the two. Balance of tension and relaxation." *Interplay between the*

two is significant as this understanding reflects the *physic-psychic* phenomenon of being proposed by such philosophers as Dewey, Dalcroze, and Merleau-Ponty.

The physical nature of playing the bass with Rabbath's technical and ergonomic solutions highlight essential components for pedagogic application of the *Method*.

According to OT, important technical aspects from the *Method* include ergonomic innovations:

Son Premier. Angled endpin and ergonomic position of the bass allowing access to all strings with the bow and to all the fingerboard with the left hand. Using the harmonic series as a basic guide to positions. The pivot and the crab.

It appears OT considers the angled endpin an important part of the technique that creates a synergistic environment for both arms. The angled endpin is an innovation in the set-up of the double bass Rabbath discovered when began his inquiry into the ergonomics of playing the bass. He explains in volume 4 of the *Method*:

The end pin angled at 45° toward the rear presents several advantages, including that of displacing the centre of gravity of the double bass towards the front. This results in a diminution of the weight of the neck on the left-hand thumb. The endpin also facilitates use of the weight of the arms, thus considerably increasing the sound power (Rabbath, 2012).

The result of this innovation is reflected in HL's response: "Comfort and ease while playing, the idea that the instrument must fit your body (not the other way around)." as it is in KX's, "Physical issues like posture, bow control, and endurance." Rabbath's innovations for technique reflect his pedagogic philosophy: "A student comes to me to realize his/her potential. I help them to not have any technical problems so they can

choose their own musical path" (Neher, 2004). HH sums up this information and the importance of such an approach to the technical aspects of playing the double bass: "The most important technical aspect of the *Rabbath Method* is play freely, without tension. Virtuosity comes as a by-product of natural stance and motion." This response suggests that eliminating any barriers caused by the physical set-up of the bass is key to achieving mastery of the instrument (see, *first steps* in chapter 6).

VNP's response describes the psychological and physical aspects of internalizing technique for playing the double bass in practice: "Learn music away from the instrument through singing, score study, and visualization using one's kinesthetic imagination" and "Gradually and incrementally building endurance over the course of many years ultimately helps improve speed and agility." Responses like this are important as they reveal the synergy between philosophy (*why*), technique (*what*), and pedagogy (*how*).

The "bow," "sound," and the three sound criteria (Sturm and Rabbath, 2005)

"weight," "speed," and "placement," which appeared in 5 responses are interpreted as

"son premier," which was identified in 2 responses. In the *Physical and Psychological*Approach to Playing the Double Bass, Rabbath states the importance of the bow: "It is said that the bow is the very soul of the bass. It is the means by which we express our sensitivity." As such the primary focus must be, as Rabbath came to realize, to create a pedagogy that enables a student to quickly and efficiently learn how to use the bow correctly, from the very beginning is crucial. Rabbath describes his pedagogy for son premier in Art of the Bow:

(I said to myself), I must solve the problem of the bow forever in a few months. I allow him to play the bow with me, just with me and after the lesson I take the bow and say, 'go, play pizzicato, do what you like but

don't use the bow'. I begin like that: I show him how to hold the bow, so I took his hand like this: I put his fingers here, like this and I say, 'bend the thumb'. I took his hand and I say to him, 'don't do any effort, don't do anything, just relax'. I like to have this motion, do nothing, and I do everything', and he heard the *real sound* because I was playing with him. (Sturm and Rabbath, 2005)

Given the complicated biomechanics of bowing a stringed instrument and that correct biomechanics are crucial for producing fundamental sound from the bass consistently, it may be unfair to ask the beginning pupil to do all of it accurately on their own. Rabbath and Sturm created a motion capture animation of Rabbath's physical nature of playing in *Art of the Bow* that helps to further explain the mechanics found in bowing the double bass. In essence, the pedagogy of *son premier* transfers the bow arm of the teacher to the pupil with the pupil obliged only to observe and listen to the sound. Rabbath created a specific technique for holding the hand and arm of the student that allows the teacher to have complete control of the bow-stroke, maintain the correct mechanics of the pupil's arm, while maintaining the correct sound as well. The learner is obliged only to *observe* how their arm is moving, what muscles are engaged or not, and the sound being produced. In this way, fundamental technical aspects of *son premier* may be assimilated by the student before they begin to play with both arms.

It is the researcher's experience that Rabbath's philosophy for teaching the bow is profound; "the pupil never learns another way than the correct way" (Sturm and Rabbath, 2005). As cited earlier, Rabbath has stated "the art of the bow is the primary focus" (Neher, 1994). This suggests that a faithful pedagogic realization of the *Method* would require the teacher be trained in the technique and pedagogy of *son premier* so as to transfer to the student fundamentals of bowing most efficiently and in the least amount of

time. It might be deduced that *son premier* is a technical (what), pedagogical (how), and philosophical (why) tenet of the *Method* that integrates the physical, psychological, and philosophical aspects of playing the bass.

Responses indicate that after *son premier*, it appears Movement–Space–and Time (MST) was identified as the second main and important technical theory of the *Method*. MST, in essence, reflects the outcomes of the left hand and arm. Realizing that "finding a note on the instrument is an outcome of movement through space and time" (Rabbath, 1984) and that multiple parts of the body are involved in an entire movement may require a re-thinking of the traditional way of describing left hand technique. Traditionally, how to find a note is described in a score by placing a number above the note indicating which finger is to be used (1-2-3-4- and T for the thumb). The player focusses on the finger to be used to stop the string and often will invent and use whatever movement gets the result. This approach over time, often leads to injuries as the movement employed might not be the most efficient and may create undo stresses on the body.

The *Method* may be the first for bass to include an explanation of the process of the movement to reach the outcome, and thus producing the note. MST explains, mostly, the physical aspect of playing the bass for the left hand and arm while *son premier* explains the action of the right arm and hand. Similar to the interpretation of data for identifying *son premier*, references to items that reflect or infer MST were interpreted as identifying MST as a most important technical aspect the *Method*. The dual importance of and synergy between *son premier* and MST was expressed in several responses as to the most important technical aspects:

- RM: Speed, weight, placement to make the perfect sound. Movement, Space, and Time to achieve the perfect left hand.
- XV: The main thing is freedom and open mind. Absorbing many fingerings gave me so much more freedom with the bow (More you have, the more you are rich)
- OT: Son Premier. Angled endpin and ergonomic position of the bass allowing access to all strings with the bow and to all the fingerboard with the left hand.
- MD: Use of natural body weight, and balanced skeletal/physiological comportment, legato bow arm.
- ZS: The bow—open strings—position, angle, weight/speed relationships for maximum resonance in sound production. Relationship between left hand (string length) and right hand (bow placement). The hand shapes/positions and freedom this creates in thumb position. The pivot system for division of the fingerboard based on the location of the harmonics. Awareness of sympathetic vibrations of the instrument for intonation guidance. MST.

Data appear to suggest that participants view *son premier* and MST as the most important technical aspects of the *Method*. And further, that MST is realized mostly in the techniques of the left arm and *son premier* is realized in the actions of the right arm.

Responses indicate that a synergy between both occurs when fully understood. RYQ's response might reflect how to achieve this synergy and reveals physical and psychological aspects in technical training: "Separating left and right brain-left and right hand-while playing scales."

Which of these Technical Aspects do You Emphasize to Your Students?

Questions 9 and 10 are similar to 7 and 8 in that they seek a response related to participants' own practice and a question related to pedagogy for their students' practice. Fourteen participants' responses were repetitions of the previous response or "all." One participant reported, "None in particular. It depends on what the student needs" However, and similar to question 8, rich data brought forth themes that created useful information for pedagogues interested in understanding the *Method* further.

In participant responses (see appendix E), *sound* occurred 9 times, *bow* 10 times, *son premier* 3 times, and *right hand* 4 times. *Weight–Speed–Placement* was found in 3 responses. As assumed earlier, all of these descriptors indicate *son premier*. Based upon the amount and frequency of these descriptors, the researcher found one half of the participants expressed strongly the importance of *son premier* for the student. It is curious that the term for what, in whole, these descriptors indicate is rarely used by this sample of Rabbathians. An explanation for this phenomenon could be, that the term *son premier* did not appear in the terminology of the *Method* or literature until the mid–1990s. George Vance described *le son premier* in 1995 (Vance, 1995) as "the basic sound or the first sound one should learn to produce" (p. 10). However, *Son Premier Exposé* translates from French as, "First Lecture." Vance pointed out further that for every student of Rabbath, *son premier* is the first subject of the first lesson. As such, this is important pedagogical information for anyone who would want to teach from the *Method*.

For pedagogues not trained by Rabbath and wanting to better understand the *Method* and pedagogical strategies for teaching it, the current study provides information through participants' reflections on their experience of the Rabbath phenomenon. This information could assist in making the decision to teach from the *Method* and further inform pedagogy from a Rabbathian lens. RM provides an excellent example of Rabbathian-based pedagogy in action:

The bow is the most important thing to emphasize so speed, weight, and placement starts every lesson. Then I think about Rabbath's work on posture second. Third I think left hand MST. This is only due to that most students will fix left hand by themselves. The other two are not easily self-correcting.

WI's reflection reveals pedagogic strategy for serving an age diverse student population:

This is hard to answer as my students range from 7 years old (and younger) to 73 year-old beginners. Overall a consistent focus on development of suppleness and sound production with right hand is probably my most consistent emphasis.

The response suggests *son premier* is a foundational aspect and is relevant for any demographic of student.

Data from participants' answers to questions 6–10 strongly suggest *son premier* is identified as an important, if not the most important, technical, pedagogic, and possibly, philosophical component of the *Method* by those who have studied closely with Rabbath.

Do You Include Improvisation in Your Teaching and Performance Practice? How is this Improvisational Aspect Influenced by the *Method*?

Another pair of duel questions sought to identify whether improvisation and the importance Rabbath places upon it is transferred in the performance and pedagogic practice of Rabbathians. Participants' responses to this question could reflect whether improvisation is part of the pedagogic frame of the *Method*. While the *Method* does not address improvisational theory, Rabbath comes from a background where improvisation was a part of the skillset he developed through playing jazz and ethnic vernacular music as a young musician in Lebanon. Participants' responses seem to confirm this. KV explains, "Rabbath grew up grew up improvising in the varied ethnic musical styles and writes much of his own music that way." RM states in addition, "I think it's very vital to Rabbath's achievements musically. Rabbath is an improviser by nature and a classical composer second." In later volumes of the *Method*, repertoire are presented that specifically indicate improvisational events in performance (e.g. *Concerto 3*, vol. V). In

fact, Rabbath's compositions are constantly evolving from his improvisations in performance; many are "open ended fragments from a current musical diary of the most intimate kind" (Greenberg, 1999, p. 62). Works written for Rabbath by Frank Proto include improvisation as well (Machado, 2005).

Responses to the first question (see appendix G) show 18 participants responded in the affirmative. One responded, "Occasionally." Two participants responded, "a little." Two responded "no" and one responded, "almost never in lessons." Several participants gave brief explanations. XV, while identifying as a classical musician and not an improvisor, appears to be open to students' improvising with the response "not really but I have students who do it, yes." The dilemma for players of classical music, where improvisation is prohibited in most settings, was expressed by KP who states, "Yes, but not enough! Improvising is a problem for most orchestral players." QD adds, "Yes, but particularly in my teaching where students are not yet bound by the constraints of their profession." The quandary orchestral musicians face in regard to improvisation was further developed by GY

I do a little improvisation if the occasion calls for it but tend to mostly play pieces that are fully composed. To a certain extent, I have fallen victim to the pre-conceived notion that 'classical' musicians can't or don't improvise. And since most of my playing these days is in an orchestral setting, I don't often have the opportunity to improvise unless I make it happen.

However, GY's response goes on to express his desire to develop improvisation in his own performance practice and how he applies improvisation in his pedagogy:

It's something I've been meaning to address in my playing and incorporate more into my teaching. In the spirit of improvisation, I always ask my students to explore changing what's printed on the page (dynamic-bowing pattern, tempo etc.) for expressive purposes. I will sometimes ask

students to work on a passage by improvising on its building blocks or patterns.

It appears from these reflections, Rabbath's influence may have attracted some participants toward improvisation, where, according to QD, they might have been inhibited by "the constraints of their profession."

Responses to the second question regarding improvisation (see appendix G) reveal how Rabbath introduces improvisation in classes and the affect his improvisations may have in pedagogy for the bass. Rabbath's approach to improvisation has roots in Eastern music where a single pitch or chord accompanies an entire piece (Greenberg, 1999). Using a drone in pedagogy for Western music education, while accepted practice today (Shamrock, 1986), was uncommon until Eastern musical vocabulary was introduced to popular music of the West in the 1960s. Artists such as John Coltrane, the Grateful Dead, the Beatles, and the Rolling Stones created new textures in an Eastern influenced space for improvisation in extremely popular recordings at that time. Marc Rossi describes the effect of Indian music on Western popular music:

This presented something new and exciting for Western popular music audiences, and for serious musicians—a gold mine of new language and beauty. It also reflected the openness of that era, where people were seeking new experiences and expanded consciousness. (Rossi, 2013)

VNP recalls the initial meeting with Rabbath and the result of being exposed to this approach to improvisation from the beginning:

When I met François at (. . .) in 2010, he encouraged each bass student to improvise over a drone during an introductory jam session on the first day. That early start led me to explore the various manifestations of improvisation in the classical repertoire. My Doctoral thesis will be a

pedagogical manual for learning to improvise cadenzas in live performance of classical bass concertos.

OT describes how improvising over a drone helps improve fundamentals for playing the bass. "Practicing with a drone and using available open strings and harmonics as a guide to both intonation and tone production."

YT's response suggests the influence aspects of the *Method* may have in the context of improvisation: "Freedom of expression and technical connection to the nervous system and the imagination." Reference to the nervous system and imagination further suggests the physical and psychological theory of the *Method* could be manifest in improvisation. WI's response reveals the deep effect of the *Method* on his improvisational practice:

The *Rabbath Method* has allowed me to develop physical ease playing the instrument and has given me the means to explore every region of the fingerboard and the technique to explore as many different timbres and techniques with the bow as I can imagine. This constantly widens the imaginative territory I have to work with in my improvising.

ZS hints that improvising creates a space where technical and psychological aspects of playing can be explored and integrated to achieve what some call *flow*:

The *Rabbath Method* offers a thorough approach to exploring the instrument from a place of connection and awareness rather than domination, which I found to open the doorway to learning all the sounds an instrument is capable of making and adding them to the toolbox rather than dismissing them as wrong/mistakes. The extensive study of the scales in Book 3 gives such a thorough command of the fingerboard it opens possibilities of freedom of facility to be able to directly connect imagination to execution.

ZS's WI's, and YT's responses point toward achieving what is termed, *flow*, through practice of improvisation facilitated by techniques and philosophies of the *Method*.

While the researcher has observed Rabbath and other artists in what appears to be a "flow

state," an outcome of flow for the student of the *Method* was not considered in research questions for this study and therefore not included in the review of literature. ZS's response warrants an explanation of flow here.

According to Csikszentmihalyi's *flow* theory, *flow* is achieved when an activity challenges the individual to fully engage his or her capacities for action; as these capacities grow, staying in flow requires taking on increasingly greater, ongoing challenges (Csikszentmihalyi, 1975). Rabbath created a taxonomy of left hand and right-hand gestures that provides ongoing challenge and requires thoughtful and attentive practice. For each major and minor scale, up to one hundred and thirty fingering variations are identified. The taxonomy of gestural movements and techniques Rabbath presents in his compositions, studies, and etudes prepares the student to play ever more challenging repertoire such as the suites of Bach, at pitch, so as to always extend the player physically and psychologically. Csikszentmihalyi's theory of flow considers the integrated physical and psychological aspects of experience. As to the physical:

THE BODY IN FLOW:

Everything the body can do is potentially enjoyable. Yet many people ignore this capacity, and use their physical equipment as little as possible, leaving its ability to provide flow unexploited. When left undeveloped, the senses give us chaotic information: an untrained body moves in random and clumsy ways, an insensitive eye presents ugly or uninteresting sights, the unmusical ear hears mainly jarring noises, the coarse palate knows only insipid tastes. But if one takes control of what the body can do, and learns to impose order on physical sensations, entropy yields to a

sense of enjoyable harmony in consciousness. (Csikszentmihalyi, 1991, p. 95)

Csikszentmihlyi's theory appears to resonate with Dalcrozian philosophy. O'Neill's study (O'Neill, 1999) revealed a crucial factor which could distinguish high achieving young musicians from average achievers: the extent to which students find musical activities to be intrinsically enjoyable or flow activities. O'Neill clarifies the dynamics of flow experience: "Flow occurs when there is a balance between challenge and skills, with both variables being above the individual's mean" (p. 130). The techniques and repertoire contained in the *Method* might provide just the material and structure to develop capacities for action (technique) and greater challenges through repertoire and improvisation, enabling the bassist to create flow experiences. ZS's, WI's, and YT's responses seem to point toward their achieving flow through practice of improvisation facilitated by techniques and philosophies of the *Method*. For further reading concerning *flow*, see Keay (2018) for a qualitative content analysis that identifies and synthesizes similarities in themes found across a body of literature that exists on the phenomenon of *flow* as it pertains to music.

According to HL, Rabbath provides a model for playing the bass that appears to reflect a flow state:

With François, one has the impression that he needs only his bass and bow to perform music. Everything else comes from the heart and music can be made at anytime and anywhere whether you are using the framework of a previously composed work, or your own extemporaneous composition.

This datum suggests the ability to achieve *flow* state may be possible from performing through philosophical and pedagogical application of the *Method*.

Pedagogic philosophy is expressed in several responses to the second part of the question, How is this Improvisational Aspect Influenced by the *Method?* For example, "I endeavor to help students find and realize their own voices. By keeping an open mind and tension free body when playing, students have the opportunity to explore their full potential." is HH's reflection of how improvisation in pedagogic practice may be influenced by gaining freedom of the body through attention to the physical aspect of the *Method*. According to HH, finding one's own voice could be a matter of developing physical freedom in playing so as to transcend the instrument and identify with the qualities unique to the individual's soundprint. Finally, MD's description of the influence of improvisation and the role of music for humanity provides a strong philosophic basis for an advocacy of music for all:

Through the idea that each human is an artist – eternal, essential, and sacred – that no matter the age or the level, the implicit need to connect and communicate through the abstract nature of sound is an innate human trait, and worthy of every consideration, and fundamentally essential for carrying human experience and elevating the human condition.

MD's statement reflects a deeply held belief in the potential for music to affect, positively, the human condition especially when guided by an equally deeply rooted philosophy. That a belief system would be developed through the pedagogy of a musical instrument suggests the importance of philosophy for not only the development of musicianship and technical skills but, also, the development of care for others through teaching and performing music.

The present study aimed to reveal what philosophical tenets, techniques, repertoire, and pedagogy are preferred by current Rabbathians and how they are applying those aspects and materials of the *Method* in their performance and pedagogy. Opinions

and reflection on the importance of improvisation from the lens of the *Method* and how the *Method* might be more broadly disseminated to the public-school domain garnered data that could impetrate consideration by stakeholders in the area of Music Education. Participants' responses to the RMPS and RMPQ yielded rich data, creating patterns of expressions which developed into themes for discussion that may give insight as to how the philosophies and techniques of the *Rabbath Method* are currently applied in the field by double bassists who have studied closely with Rabbath.

CHAPTER V – EMERGENT THEMES

Participants responses to the RMPS and RMPQ yielded rich data. Themes emerged from axial coding of participant responses into expressions that were organized and analyzed to reveal patterns that may provide further clarity as to the salient philosophical, technical, and pedagogical aspects of the *Method* as expressed by participants in the study. Emergent themes are discussed here.

According to Vaismoradi, Jones, Turunen, and Snelgrove, (2016), "Theme is used as attribute, descriptor, element, and concept. As an implicit topic that organizes a group of repeating ideas, it enables researchers to answer the study question" (p. 101). Codes that have, "a common point of reference and have a high degree of generality" unify ideas regarding the subject of inquiry. In qualitative research, themes come from the data (an inductive approach) and from the investigator's prior theoretical understanding of the phenomenon under study (an a priore approach) (Ryan and Bernard, 2003). The importance of any theme, according to Opler (as cited in Ryan and Bernard, 2003), is related to (1) how often it appears, (2) how pervasive it is across different types of cultural ideas and practices, (3) how people react when the theme is violated, and (4) the degree to which the number, force, and variety of a theme's expression is controlled by specific contexts (p.87). Data from the writings of Rabbath, the researcher recorded interview, interviews represented in peer-reviewed journals and other scholarship, and the researcher's own experiences as a Rabbathian further informed the development and analysis of the most salient themes presented by the data.

Theme 1.

Each One Is Unique

Sub-themes

We are Artists-Accept One-another

Be Better Than Yourself-Throw Your Ego Away

Participants' expressions that reflect Rabbath's philosophy of the primacy of the individual include: honesty of music-making and self-expression, non-competitive self-improvement, throw your ego by the window, be better than yourself, while inspired by others you must endeavor to be more yourself, you cannot be another person, a focus on individual development and artistry rather than on competition and external achievement, each human is an artist, freedom to create and be one's unique self.

According to Rabbath, "each one is unique" (each human being). This philosophy occurs throughout the complete writings and interviews of Rabbath and appears to be the basis of what for him, defines an artist:

Each one of us are unique, I say it one hundred times. And each one of us interprets, differently, music and that is our richness. We are artists, we must, each one, feel something different and that is the purpose. (Sturm and Rabbath, 2011)

Rabbath appears overly adamant for this theme; his description of how early in his career he had to confront a profession that seemed to convey attitudes antithetical to his philosophies might explain his development of sub-tenets:

This is the worst word you can hear. When I came to Paris, I didn't know they had jealousy, I was the only bass player in Lebanon so... I came and I began to play. I was hired with Aznevour (Charles Aznevour, one of the most popular French entertainers of the time) I began to play with him, (and) the bass players said, 'he can accompany Aznevoir, but, he doesn't know how to play classical'. I went to the conservatory, they said, 'he knows how to play classical and accompany Aznevoir, but, he doesn't know how to play jazz'. I played with Duke Ellington, with Ornette Coleman and they say, 'he plays the classical, the jazz, but'......it always

has, *but*. We must destroy this *but*. Because I took that all my life, 'Yes, you do this and that and that *but*...'. (Sturm and Rabbath, 2005)

Rabbath seems to suggest his uniqueness as an artist allowed him to transcend stereotypical attitudes that occur in the music profession. NU recalled Rabbath speaking to children, "He explained the importance of their roles as 'True Artists' and that they have a responsibility to convey meaning and love through music." However, what is an artist? A 'True Artist'? To put this philosophy into a broader context, it must be asked, why would it be of importance to teach children to identify as artist? This is fair:

While the definition of an artist is elusive, the role of artistic labor in reviving industries, sectors, and cities has been of particular interest to scholars in public policy, urban planning, sociology, and economic geography. Research suggests industries, sectors, and cities are designated as healthy to the extent that artistic workers have leveraged their educational credentials into full-time employment. (Lena and Lindemann, 2014)

All of this might be *how*, through pedagogic philosophy, we as teachers could enable students to aspire to transcend boundaries in any field. Whether one becomes a professional bassist or not, identifying as an artist could be a desired character trait in society, certainly for those who perform and/or teach music.

Later in the interview recalling the jealousy he encountered, Rabbath shares his philosophy of inclusion and acceptance:

I accept all the people like they are, why 'but'....? Why must we not be simple and accept the other? You know, that each one of us are unique. If we are unique, where is the word, but? You cannot accept the other one

without yes, *but*? Why is that? Do you want to minimize his value, why? Accept him. (Sturm and Rabbath, 2005)

Many participants expressed Rabbath's philosophy of "throw your ego away." *Throw* your ego out the window!, Don't TRY, Less competitive approach and, Don't be afraid to make a mistake are expressions that emerged from responses and reflects Rabbath's philosophy of self-acceptance which underlies his aphorisms relating to ego, the self, and *joy of expression*. Rabbath tells why it is important to avoid an ego orientation in learning to play:

...accept that you can make a mistake. When you are anxious, everything will be wrong. From the beginning, if you throw your ego away, everything will be perfect. Without your ego, you will learn. (2005, interviews, *On Teaching*)

It appears *primacy of the individual* is an important aspect of Rabbathian pedagogy and an accurate yet unique iteration of the philosophies contained in the *Method*. GY's response seems to reflect this philosophy:

I try to instill in my students' curiosity, humility, and ownership of their musicianship that I hope will keep them interested and hungry for more not only between lessons but after we part ways. I do my best to help them discover their own musical voice and expressive potential and I hope they will take the inquisitive and open-minded approach we work on to the rest of their lives as well.

GY's statement seems to reflect Rabbath's philosophies in action and suggests all of this might be *why*, through pedagogic philosophy, we as teachers would enable students to discover their unique traits. Whether one becomes a professional bassist or not, identifying as an artist can be an outcome of learning through a pedagogy that promotes creative and divergent thinking and allows a student's imagination to flourish in the activity.

Theme 2.

Growth-Growth Over Time

Sub themes

The cycle

What You Cannot Do Today, You Can Do Tomorrow

Growth, growth over time, personal growth, What You Cannot Do Today, You Can Do Tomorrow are examples of Rabbathian expressions deemed important in technical and philosophical aspects of the Method. The concept of growth over time is one Rabbath expresses pedagogically in several ways. For an example, in teaching his scale training theory, he advised us to "little by little, add to the scale cycle each day, to 'grow up' the cycle" (Sturm and Rabbath, 2011). The cycle, as Rabbath uses the term, involves repetition of scales. According to Rabbath, growing up the cycle is attained by purposeful and always mindful practice of scales, with a taxonomy of fingerings and bowing gestures, increasing repetitions gradually:

I am developing my muscles, in a way, to have endurance. But to do that, I developed that (the cycle), little by little, to make scales for two hours developing this endurance. To arrive to do this two hours, I put in three years, maybe. When I arrived to this development, in six years of time I always did the same training. It's fantastic because it is the way how to develop endurance. (Sturm and Rabbath, 2011)

Rabbath describes *what* (training), *how* (scale cycles), and *why* (to develop endurance, for instance). The philosophy for scale training states mindfulness and attention to purposeful action is critical in prolonged cyclic scale practice. "Work intelligently; never lose sight of the fact that you are performing *music*, be it a scale, an exercise, an arpeggio. The words *scale*, *exercise*, *arpeggio* should not be understood as a state of mind; they are only names" (Rabbath, 1984, p. XI). NU identified an expression from

Rabbath that may be applied in the cycle practice to enforce purposeful action, "take responsibility for the sounds you make."

Attention to maintaining *son premier* and left-hand fingering patterns might be examples of directed foundation technique in the scale cycle but deviations may be introduced purposefully, for example, exploring different degrees of dynamics or different fingering patterns, and so forth. Rabbath advises, when becoming fatigued or making a mistake, the player must recover not by stopping but by returning to *son premier*. That completes one cycle. In this way, sustaining the cycle becomes a matter of bursts of energy, so to speak, followed by active recovery in *son premier*.

Repetitions of a scale cycle may serve several purposes. According to Rabbath, the number of repetitions of a scale the player performs helps develop stamina and endurance; repetitions may help the player perfect movements such as shifts or string crossings; continuous diminution of the rhythm could develop velocity; adding varieties of articulations for the bow cultivates flexibility for the bow arm and gives the player choices for musical solutions. Vibrato may be explored in wider branches of rhythmic units. All of this suggests the goal is to promote technical growth, musically, through "growing up" the cycle.

As Rabbath stated, it took six years to develop his technique. Perhaps his philosophy of *growth over time*, expressed by participants, was developed through the process of *growing up* the cycle. The efficacy of the cycle appears dependent upon mindful and purposeful attention to rhythm, various movements of both arms guided through MST, and tension free application of *son premier* with the right arm.

Theme 3.

The Method in Public School, Yes in a Perfect World! Sub themes

Teacher Training All Strings

Participant expressions coded from responses to RMPQ question 6 developed into themes that were enthusiastic yet cautious as to the idea of a broader application of the *Method*. Nearly all Rabbathians affirmed the *Method's* efficacy for use in school programs with one or more caveats. VP's expression might foretell challenges: "Yes!, in a perfect world!" The most prevalent expression was that accurate application of the *Method* in any setting *requires a teacher trained in the Method*.

Rabbath is enthusiastic for the *Method* in the Public School setting as well:

I think teaching (the *Method*) in the school is the most important thing for the beginner...but the teacher must be a very good teacher to teach the fundamentals. However, most of the teachers play different instruments and they teach the *Method* more or less. Teaching young people is more important than master teaching because the *debut* of each young person is more important later. When the foundation is wrong, everything will be wrong later. When the foundation is good, you can build the student without stopping and that was my thought. (F. Rabbath, personal interview, September 19, 2018)

A teacher trained in the pedagogy of another instrumental method might not have the philosophy, pedagogic techniques, and applied techniques to inform their practice of the *Rabbath Method*. For the teacher, the philosophy and pedagogy from the *Method* is most important. For the students, it need only be about the technical foundations that apply what he calls, *physical laws* for playing music:

The teaching philosophy is, we must teach the physical laws in our approach from the technique; everything is based upon that. So, if you understand that, everything changes. Yes, you can teach the *Method* for any level but, the teacher must be at the level that they understand my technique to then teach it. That is my opinion. (F. Rabbath, personal interview, September 19, 2018)

An example Rabbath gave of *a Physical Law* is A 440 (F. Rabbath, personal interview, September 19, 2018). A 440 cycles per second is the pitch most ensembles use to tune to one another before performance. However, this assumes each individual in an ensemble is able to produce an accurate pitch of 440 cycles per second. In this example, the pedagogic *foundations* to enable adherence to the *Physical Law* appear to be *son premier*, to produce accurately the pitch with the bow, and MST for finding and accurately stopping the string at 440 cps. This seems logical, but the pedagogy for teaching the *foundations* is reinforced by both the philosophy and pedagogic techniques found in the *Method*.

According to Rabbath, for the teacher, the philosophy and pedagogic foundation and physical laws from the *Method* are most important. It might be further suggested that philosophy, pedagogic foundation, and physical laws would be inextricably linked in any applied studio (instrumental and vocal), each vital for producing high levels of student achievement as performers and perhaps pedagogues. Finally it could be said that these three components cannot be separated, that they are so connected and integral to one another, that to truly separate them in practice of the *Method* is impossible.

From participant reflections emerged the assertion that the *Method* may be relevant and applicable to all strings in the orchestra and that the foundational pedagogy does not conflict with current pedagogy. It appears the one existing conflict may be with the pedagogical training of pre-service teachers that, while considering some of the applied techniques of the *Method*, does not provide training in the foundational aspects that may be applied to the physical laws of the *Method*. Pre-service teacher training and

applied training for other string players appears to be a possible area of research designed as a way to provide evidence for a broader application of the *Method*. According to Rabbath, this is the direction for current development of the *Method*:

Now, I am teaching cellists, violinists, and violists my *Method* and, with Hans Sturm, we are developing the *Method* for teaching all the strings. I discovered how Paganini played and instinctively, I found out with my *Method*, how it must be done, and it helps everybody. The important thing is the teacher must know how to teach the foundation. We are working with Hans to explain all that. (F. Rabbath, personal interview, September 19, 2018)

Other expressions support a theory that students in the public-school could benefit socially from exposure to Rabbath's philosophical world-view: *The connection of students from the same age group is vital to growth as human beings, Group learning situations are at least as important as one to one lessons, Being better than yourself would be a healthier way for students to interact with one another.*

Theme 4. Improvisation Sub themes Creativity Freedom-Openness

Participants' expressions on this subject reflect the importance of improvisation to Rabbath's approach to the bass: François always recommends improv. Another revealed Rabbath's background that enabled him to explore improvisation, FR grew up improvising in the varied ethnic musical styles and writes much of his own music that way. Another described Rabbath's process and the role of improvisation in it, Rabbath is an improviser by nature and a classical composer second. Rabbath himself explained his view of the importance of improvisation:

Improvisation is part of the (musician's) knowledge. Because if you can improvise, it will help you to become a composer. What is improvising? It is composing, in the moment...but you must know how to do that. And many musicians don't know how to do that and that is bad, because, we don't help them to understand meaning in music. (F. Rabbath, personal interview, September 19, 2018)

It is possible Rabbath implies here, that to learn to project meaning in composed music, we might first discover how to project our own personal musical meanings through improvisation. As revealed in Chapter four, participants who perform in classical settings may not get opportunities or have the time to explore improvisation. However, to help musicians begin to gain this understanding of their own musical meaning, it may be that as pedagogues, we might consider finding the space in our classroom or studio curricula to include the experience of open-ended self-expression through improvisation. As expressed further by participants, they experienced this in master classes with Rabbath by playing over a drone. According to Rabbath, improvisation is an aspect of his pedagogy. Rabbath reveals the phenomenon of first encounters with improvisation from his classes:

When you see, in my master classes, sometimes I make a drone and I say to each one of them, 'do that' (improvise). Some people say, 'I don't know what to do', I say do scales, do what you do, just one note. Young people must know how to do that, for them it is a joy; at the same time, they learn how to be a musician. Because, they listen; when they listen, they will do their best to make a phrase in the chord. You open the mind, improvisation is very important, voilá! (F. Rabbath, personal interview, September 19, 2018)

Rabbath's development of the *pallet sonor* suggests that genre specific improvisation is only one approach; timbral improvisation is a valid approach, according to Rabbath and suggests further that the expression of human imagination is more to the point and improvisation can be a vehicle for such expression.

Improvisation as a means to discover and engage creativity and promote freedom of expression were participant responses and further developed in expressions of openness, open mind, and opening freedom of facility to be able to directly connect imagination to execution. Participants' expressions indicate improvisation may help open a pathway to discovery of musical meaning. It seems that, according to Rabbath, opening the mind may be how to present the pathway to students' discovery of musical meaning. As such, it appears that improvisation may be foundational to the philosophy of the Method as well.

From an *a priori* viewpoint, the researcher analyzed the *Method* through careful study of related areas, the complete writings of Rabbath, responses to open-ended questions by participants, and Rabbath's current thoughts on the direction of the *Method*, to gain insight into how the *Method* is applied in current pedagogy and performance.

Emergent themes revealed through coding and analysis of data identified four salient aspects of the *Method* that might provide the reader a context to evaluate the researcher's recommendations for future research inquiries. A summary of these emergent aspects are as follows:

Theme 1.

Each One is Unique

Theme one reflects Rabbath's philosophy for the potential of each human being, the primacy of the individual. Sub themes may reflect behaviors that develop through practice of the philosophy and pedagogy of the *Method*. As such, pedagogic strategies in application of the *Method* would indicate space for freedom of expression and development of self-teaching for students.

Theme 2.

Growth

Theme two reflects Rabbath's philosophy and pedagogy for sustaining practice of the *Method* with technical and musical growth. Playing scales is a training strategy that exists in most instrumental methods; however, the terminology and, especially the explanation of *how* and *why* to train in this way, including the physical and psychological ramifications, have not been presented as explicitly as Rabbath has done in the *Method*.

Theme 3.

The Method in Public Schools

Techniques from the *Method*, mostly the pivot for the left hand, have been assimilated in string class methods (Frost and Fischbach, 2002; Erwin, Horvath, McCashin, Mitchell, 2006). Nevertheless, the *why* and *how*, that is, the philosophy and pedagogy of the *Method* does not appear to have been fully codified into a method for string class teaching. As stated earlier by Allsup, "an articulated philosophical rationale for large performing groups that goes beyond the profession's utilitarian functionalism is missing from the music education community" (Allsup, 2010). Teacher training for the *Method* does not exist on a broad level and may only be available through Rabbath and his trainees. Further, not all Rabbathians are trained in the philosophies and classroom pedagogy of public education methodology. These are but some of the challenges the *Method* may face in attempting a global assimilation in music education.

Theme 4.

Improvisation

Improvisation was identified by Rabbath and many participants as an important component of musicianship. Participants responses as to the importance of improvisation

suggest improvisation may improve musicianship, expressivity, and cultivate an open mind to diverse performance practices and pedagogic strategies. Improvisation, according to participants, may help students engage their creativity through the practice of improvising as a means to begin to compose. It appears that according to Rabbath and participants, from a connection of sound and movement to the creative imagination the unique voice of each player may emerge through the freedom found in improvisation.

That participant reflections expressed the philosophical underpinnings of the *Method*, often in unique explanations by each, suggests the pedagogue can give more than just a technical explanation of the activity. From responses by Rabbathians it appears that a philosophical basis for learning and performing a musical instrument could be transferable to other endeavors for the benefit of society as a whole.

CHAPTER VI - PHILOSOPHY IN ACTION

Philosophy as the basis for action appears essential for effective teaching and performance. The word *philosophy* is derived from the Greek and Latin words, "philo" (beloved), and "sophia" (knowledge): or, literally, *love of knowledge* (englishingles.com, 2018). According to the Florida State University department of Philosophy:

Quite literally, the term "philosophy" means, "love of wisdom." In a broad sense, philosophy is an activity people undertake when they seek to understand fundamental truths about themselves, the world in which they live, and their relationships to the world and to each other. (What is Philosophy?, 2018)

The love of knowledge and the dissemination of that knowledge could be an essential basis for developing a philosophy for performing and teaching musical instruments.

François Rabbath's philosophy for playing and learning the bass appears to resonate with such a basis and may be rooted in his fascination and love for playing the bass.

Wayne Bowman explains the ramifications of philosophy for musicians and music educators:

Whether one is more immediately concerned with the making and doing of music, with the study of its inner workings, with teaching others about it, or with helping people develop the requisite skills for particular musical practices, music philosophy seeks to refine critically the system of beliefs and values that guide professional choices and decisions (Bowman, 1998, p. 10).

As performers and pedagogues, philosophy may reveal why to play and teach specific pedagogic components. What and how to teach and perform could become apparent through observation over time, with careful consideration and analysis of these aspects of a music teacher's life, and may provide important insight into consistency and predictability of personal achievement. The why however, becomes elusive, especially when methods, manuals, and study materials for instruction are created, seemingly, without a clear philosophic explanation.

Rabbath identifies as an auto-didact, a self-learner (Fanelli, 2008; Sturm and Rabbath, 2005), who became an acclaimed performer/pedagogue and has given us insight into his philosophic bases for performing and teaching. The term auto-didact is defined in *Le Petit Robert* (1987 edition) as, "Qui s'est instruit lui-même, sans maître (Who taught himself, without a master)" (Chapman, 1992). Rabbath's need to develop and apply pedagogically, his philosophical tenets, could be as a result of his being a self-learner of the bass, a pedagogue who developed without a teacher to tell him *why*; "I don't have any professor, I am self-taught and I am proud to be" (Sturm and Rabbath, 2005). Auto-didacticism is most closely identified with an Enlightenment ethos, which Immanuel Kant compressed to two words of Horace—Sapere aude, "Dare to know" (Ben-Zaken, 2011).

The forward to the first volume of the *Method* contains questions Rabbath poses that begin to explain the *why* of his playing and teaching. For example, Rabbath asks: "What is the point of having a new method when generations of good bass players have found the traditional material entirely satisfactory?" (Rabbath, 1977). Rabbath's *why* question appears to reflect a philosopher's thinking. In the forwards to subsequent

volumes, Rabbath develops his philosophic bases for learning to play and teach the bass culminating in an explanation of his technical and pedagogic philosophies in *Art of the Bow* and *Art of the Left Hand* DVDs (Sturm and Rabbath, 2005; 2011). Thoughtful reflection on Rabbath's philosophic tenets illuminates just how deeply a master pedagogue would go to answer *why*.

Interpreting Rabbath's philosophical tenets is informed through the study of related literature and reflected upon using the data collected through the current study. The following sections of text are organized based on concepts from Rabbath as samples of the tenets of his philosophies for playing and teaching the bass that are most important to the researcher and additionally highlighted by the participants in this study. Reflections on each tenet and related citations are interpretations for technical and pedagogic components of Rabbath's philosophy based upon the researcher's thirty—seven year experience studying the *Method* alone and with Rabbath in private lessons, master classes, and workshops. Further reflection comes from the researcher's experience teaching the *Method* with approximately 125 pupils.

Philosophical tenet 1: First Steps: Everything must be perfect.

According to Rabbath, this is pedagogy for the initial encounter with the double bass. Rabbath describes the components of *first steps* as "foundation" (F. Rabbath, personal interview, September 19, 2018) and, as Duke and Byo describe such a pedagogy for beginners, "it's about carefully setting up kids from the beginning to be *fundamentally excellent* in terms of the physical and artistic aspects of music making" (Duke and Byo, 2011). It is important to realize "Everything must be perfect" does not necessarily mean

mistakes are not made or allowed. Rather, the variables that can be controlled must be as detailed below.

First steps pedagogy requires the student be accurately fitted, physically, with the best functioning double bass and bow that provides accurate and consistent feedback for the student. Basses come in many sizes, shapes, and string length which determines the distance between notes and thus how large a hand needs to be in order to reach the notes. Further, the teacher must insure the instrument is adjusted in a manner that the strings are easy to push down to the fingerboard yet strung with enough resistance to vibrate the instrument sufficiently to produce a dynamic range from piano to fortissimo. The strings should be of a thickness to support energy applied to them but not so heavy that they mute the instrument. The bow should not be too heavy, especially at the point, with fresh hair, and balanced throughout its' length. Or, as Rabbath says, "A good bass, with good strings, and a good bow" (Sturm and Rabbath, 2005). The researcher has encountered, too often, instruments that are so poorly constructed and out of adjustment that it is nearly impossible for a master to play on them well. Why first steps is crucial is that, under these circumstances, it is unfair to expect the student to perform well and learn.

Duke and Byo (2011) explain the result of having to remediate the foundation: "It's problematic if the ideas and skills we teach now have to be 'revised' later because what we taught initially was not precisely true or correct." For *how* to avoid the necessity of remediation, according to Rabbath, the pedagogue would advocate for schools and parents to make available the best instruments possible for students. Rabbath engaged luthiers (stringed instrument makers) and archetiers (bow makers) for forty years in collaboration to design and produce double basses and bows. Of particular note, the

French luthier Christian Laborie collaborated with Rabbath to make at least 60 artist level copies of the 1933 Charles Quenoil double bass most used in performances and recordings by Rabbath. Further collaboration with Laborie produced student grade Quenoil model basses. The student models retain required standards of *First Steps* that enable students to learn and grow, unimpeded by faulty equipment from the beginning.

Rabbath, with Laborie and Nicholas Walker, developed an endpin (the endpin is what connects the double bass to the floor) that tilts the bass at a 45° angle. The angle opens the bass so the center of gravity is adjusted toward the player, thus relieving the weight of the bass from the player's left hand. This adjustment allows the player to use the free weight of the arms rather than applying weight by muscular contraction (Sturm and Rabbath, 2005). The ergonomic innovation of the 45° endpin further relieves the arms from holding the instrument and allows freedom of motion for the arms. Several participants identified the angled endpin as contributing to an ease and freedom for playing the bass.

The French musical string company Savarez engaged Rabbath to design strings for the double bass that satisfy his artistic and pedagogic requirements. This collaboration produced strings for fractional-sized basses as well. Such fractional sized strings retain the same "feel" for playing, that is, the same resistance as strings for full-sized instruments. Since the development of fractional-sized instruments, playing the bass may commence at a much younger age. The researcher observed a 1/16 size bass that can be fitted to a three-year old at the Kansas City Bass Workshop in 2016. Now, by the time a student reaches high school they may have been playing bass for 10 years-extremely rare thirty-five years ago. Tireless in his quest to improve the design of the

bass and strings, explain and improve ergonomics of bass playing, and engage master luthiers, Rabbath put into action the pedagogic philosophy contained in *First Steps*, to compel the creation of appropriate materials for the application of foundational aspects of the *Method* contained in the following two tenets.

Philosophical tenet 2: Son Premier: First Sound, The Soul of the Bass

According to Rabbath, the ability to produce a representative sound should be a foundational aspect of playing any instrument. As such the bow is identified by Rabbath and participants as a most important foundational component. Rabbath is clear as to *why*:

It is said that the bow is the very soul of the double bass. It is the means by which we express our sensitivity. I therefore recommend everyone to learn to master it and to discover a personal sound: besides being enthralling, the search is too essential to be ignored (Rabbath, 1984, p. X.) [author's underline].

Developing the ability to produce the purest vibration of the string, one with fullness of overtones and accuracy of fundamental pitch, requires attention from the very beginning of learning play the bass (Sturm and Rabbath, 2005). Creating sound, based upon a formula of three sound criteria (speed, weight, placement) translated through the bow with as little muscular tension as possible, is fundamental for developing endurance, expressivity, and skills of musical communication. Most participants identified *son premier* as possibly, the most important technical and philosophical tenet of the *Method*. As such *son premier* could be considered foundational, philosophically, to teaching the *Method*. Fundamental to *son premier* and representative of the Laws of the *Method*, Rabbath identifies the three criteria for producing sound from a string with a bow as,

- the path of the bow across the strings (bow speed)
- the position it occupies on the string for each note (placement)
- the weight of the arm (natural weight, not forced weight)

Rabbath, by 1990, developed the pedagogic philosophy son premier, and a pedagogic technique whereby the student is assisted by the teacher in holding and drawing the bow as demonstrated in Art of the Bow (Sturm and Rabbath, 2005). Teaching son premier requires the teacher employ a specific hold of the student's arm. The student must only set their bow arm on the teacher's left fore-arm. Holding the arm relieves muscular contraction in the student's hand, arm and shoulder, so the arm moves freely without tension. This part of the process is designed so as to condition the student to play with little muscular contraction in the arm and shoulder, allowing the pupil to learn to use appropriate muscles in the back to hold the arm and in the hand to hold the bow. The teacher, having control of the three sound criteria outlined earlier, guides the student's arm for a bow stroke on the correct plane, at a consistent speed, and with consistent weight, enabling the student to experience correct muscular, tactile, and aural feedback without being obliged to balance and maintain the three criteria. The student observes how to produce correct finer movements of the fingers, wrist, forearm and upper arm which in sum results in a dynamic and fluid bowing motion that includes the rotational aspects (pronation and supination) found in the ulnar mechanism of the arm. The bow change is managed by the teacher as well, thus eliminating any question of how to make quiet and musical changes of bow direction. All of this is an outgrowth of a philosophy that enables and demands teacher and student, together, to discover and solve the many variables found in bowing as just described.

Rabbath's pedagogy, for *how* to teach son premier, lets the student ease into the multi-variable environment of bass and bow. This could be why Rabbath and participants expressed that teacher training is essential for foundational pedagogy, especially in a public—school domain. Philosophically, *why* the pedagogy for beginning with *son premier* would be required is to enable students to progress, from the beginning, unimpeded by imbalances of sound criteria perceived as inconsistencies in articulation, note lengths, and intonation. Further, such a philosophy for beginning to play may enable development of a personal connection with the sound they produce from the instrument.

Philosophical tenet 3: Movement, Space, and Time

To frame his explanation of the technical philosophy Movement–Space–Time (MST), in the expository introduction to volume three of the *Method*, Rabbath states, "... we must realize that reaching a note on the fingerboard is simply the outcome of a movement through space and time" (1984, p. VIII). MST is a foundational aspect of the *Method* and explains the role of body movement in playing the bass. Psychologically, MST presents the player with a logical conception of *how* to master any movement required for playing the bass. Philosophically, MST explains *why* a conception of movement may be vital to understanding *how*.

Philosophers and theorists speak in terms of movement in space in time as related to understanding the experiential phenomena of music. According to Stephen Handel time is an integral component of perception of sound:

Auditory events are set in time and they are perceived in time. If an understanding of our experiences is possible, it must be correlated to the

temporal characteristics of sounds. Before this is possible however, the basic physical principals underlying sound production must be understood...Only after the acoustical input is described can we ask questions about the relationships between the physical input and the perceived events. The relationships found between the physical and psychological worlds will motivate and suggest how to look at the physiological world. (Handel, 1993, p. 4)

What Handel refers to as *temporal characteristics* of sounds may be similar to what the philosophers Lakoff and Johnson (1999) call *metaphoric concepts* in language that cognitively place *motion as primary* in the psychological conception of time:

Time is as basic a concept as we have. Yet time, in English and in other languages is, for the most part, not conceptualized and talked about on its own terms. Very little of our understanding of time is purely temporal. Most of our understanding of time is a metaphorical version of our understanding of motion in space. It should be said at the outset that motion in our conceptual systems is not understood in the same way as in physics. In physics, time is a more primitive concept than motion and motion is defined as the change of location over time. But cognitively the situation is reversed. Motion appears to be primary and time is metaphorically conceptualized in terms of motion. There is an area in the visual system of our brains dedicated to the detection of motion. There is no such area for the detection of global time. That means that motion is

directly perceived and is available for use as a source domain by our metaphoric systems. (pp. 139–140)

These philosophic concepts of music in terms of motion (movement), time, and perception appear to resonate with the psychological aspect of MST. The philosophy of embodied meaning found in cognitive psychology, as explicated in the literature review, emerges here. In this context, a fingering pattern, often marked in the performer's music score, becomes a metaphor for a physical movement. Rabbath speaks of MST in terms of the movements of the left arm, which is responsible for stopping the string in different place along the fingerboard to create pitches as the music requires. Rabbath created a taxonomy of fingering patterns for the left hand that is exhaustive (Rabbath, 1984, pp. 1-50, pp. 92-120). He identified up to one hundred thirty fingering patterns for a three–octave scale in all major and minor keys. Each one of these fingerings could, metaphorically, represent a specific *movement*.

As both arms are in motion while playing, MST appears be the integrative factor for the separate tasks of each. Rabbath models this philosophy in action in the *Art of the Bow* DVD with visual examples of how the entire upper body places the finger in the correct spot, to accurately produce a note, revealing the dynamic movements of the left arm and torso. MST, like *son premier*, is a foundational technique of the *Method* and was identified as such by participants.

MST philosophy in pedagogy might access the psychomotor domain to support cognition for the realization of musical performance. The psychomotor domain addresses skill development relating to manual tasks and physical movement as well as operation of equipment, such as a computer, and performance tools in science, art, and music.

Benjamin Bloom defined cognitive learning as dealing with "recall or recognition of knowledge and the development of intellectual abilities and skills" (Rovai, et al., 2009). Several major philosophers in music learning incorporated movement in classroom music curriculum (Dalcroze; Gordon; Orff). Such theories point toward the philosophy of embodied learning; however, in the science of instrumental music pedagogy, understanding of *how* movement facilitates music learning has been nebulous. Galvao and Kemp reported:

Playing a musical instrument involves the accurate execution of fine motor movements. These are highly dependent upon kinaesthetic information reaching the central nervous system. Kinaesthesia or, "muscle sense", is considered by some to be related to the inner experience of space and movement in humans. Unfortunately, the specific features of kinaesthetic sense that allow individuals to control changes in position, rate or acceleration of limbs are still unknown. (Galvao and Kemp, 1999)

Rabbath explains the technical philosophy of MST in action in *Art of the Bow*: "All the body must have motion. It's not just the arm, it's your chest, your body, everything. From here (the legs) it goes (Sturm and Rabbath, 2005). In the application of this philosophy technically, the body places the bow while preparing movements of the left arm. Rabbath speaks of the muscles of the body becoming accustomed to movements (Rabbath, 2012). *Becoming accustomed* does not necessarily mean *being responsible* for the movements required as the movements are dynamic and recruit groups of muscles from the whole body. So as to cultivate a physical intelligence from kinesthetic knowledge that later may

be crucial for mastery of the dynamic movements involved in playing the bass could explain Rabbath's philosophy for presenting MST from the very beginning of playing an instrument.

Philosophical tenet 4: Don't Stop

Rabbath has expressed this philosophical tenet since at least 1990. First, and according to Rabbath, always encourage the pupil to play, completely, the piece of music and never stop the student's performance in order to isolate a flaw:

Mistakes and wrong notes should not interrupt an exercise. Carry on and when the exercise is finished, go back to the very beginning and not just to the part where you became unstuck. A piece of music is an entity which must be seen as a whole. To play a few difficult bars several times increases the possibility of stumbling in the same places when the whole work is being played. To play the whole thing again is to locate the difficulty in its natural place, see it in perspective, and give it its real value without over-emphasizing its importance. (Rabbath, 1977, p. IV)

Don't Stop, it appears, is a pedagogic philosophy from the psychological aspect of playing the bass. By applying this philosophy in pedagogy, the student may develop the ability to get past a mistake or unexpected occurrence and avoid the habit of interrupting performance as a reaction to an error.

When training to be a concert performer, Rabbath's philosophy of *don't stop* advises to play as un-interrupted as possible. As stated, the *Method* advocates playing scales for two hours without stopping (Rabbath, 1984, p. XI). Rabbath's technical and pedagogic philosophy for training was challenged by pedagogues, at the beginning,

possibly due to a lack of understanding of the philosophy and processes involved. Studies (Lehmann & Ericsson, 1997; Ericsson, Krampe & Tesch-Römer, 1993), of instrumental performers and students, have identified varied lengths of daily practice from 1 hour to 8 hours, and results suggest there is often little benefit from practicing more than 4 hours per day, and that gains actually begin to decline after the 2–hour mark. This information seems to confirm Rabbath's pedagogical theory of training for two hours and gives insight into *how* he was able to achieve his acclaimed level of technique..

According to the philosophy, training this way achieves resistance, endurance, and velocity (Rabbath, 1984, p. XI). As this training involves both arms, it appears the foundations of MST and *son premier* must be in place before embarking on the process. *Why* the philosophy of *son premier* becomes crucial for this type of training is that, if not having learned to play without force, one risks injury, especially to the right shoulder, from prolonged bowing in a state of tension. Philosophically, *why* MST is equally important to *son premier* is that incorrect movements may lead to injury, or development of tendonitis in the left arm and shoulder, causing interruption in training (Sturm and Rabbath, 2005; 2011).

According to Rabbath and several participants, the pedagogic philosophy for reaching the training to mastery level of volume three of the *Method* must focus on developing, from the foundation, perception of balance and correct biomechanics for playing *without tension*. Perhaps the desire of a pedagogue to illuminate all of this was *why* Rabbath created a motion capture animation of his playing in the *Art of* DVD series. Further, it appears that only with a detailed understanding of the foundational techniques,

philosophies, and pedagogy (for one's self or students) would Rabbath's theory for technical training be achieved and maintained safely.

Lastly, in the researcher's view, the philosophic tenet *Don't Stop* encourages the player to never stop growing as a player, pedagogue, and human being.

Philosophical tenet 5: What you can't do today, you can do tomorrow

This aphorism expresses Rabbath's philosophy for balancing musical practice with one's life in general. It appears tied to the themes of *Growth* and *Growth over time*, themes developed from expressions of participants. According to Rabbath, if one has not practiced long enough to assimilate the information needed to play a technique or a piece of music, then all that may be needed is enough time. Playing eight more hours today may get one *further* from the goal than simply progressing "little by little" every day and getting steadily closer to the goal. According to this philosophy, it might be better to put down the bass and return refreshed, physically and psychologically each day, beginning anew, so as to achieve daily progress.

Philosophical tenet 6: Love to Learn

Suzuki advised us to "teach with love" (Suzuki, 1983). Suzuki's philosophy appears to share several tenets with that of Rabbath. A loving environment, tone is the living soul, human nature without ego, and a belief in the potential of all children (Hendricks, 2011) are but a few examples of parallel philosophic tenets. Love was expressed in responses by participants as was releasing of the ego. Rabbath's philosophy for teaching advises, "teach him with the love to learn." Rabbath describes the child learning to walk with the parents' encouragement. Upon success, the child is overjoyed with having achieved moving upright on his own (Sturm and Rabbath, 2005). According

to this metaphor, the teacher allows the student to discover the correct movements for a musical task in two or three tries. At an impasse, the teacher, like the parent, catches the child and helps them to keep moving by re-balancing movements. To re-iterate Noddings, "If we interrupt the student's inquiry at the outset by telling her, 'That's wrong; here is the right rule,' she may never understand why her own way is wrong" (Noddings, 1995, p. 33). To allow the student to process information and create their own solutions may cultivate an ownership of and a love for learning that would uncover an urge for creative activity and output.

Contrasting this "loving" learning environment with a negative environment, often created in traditional contexts could reveal *why* Rabbath developed the philosophy of teaching the love to learn. Rabbath recalls his experience as a child:

I learn at the school, I am sorry . . . if I don't know at the school, if I don't know how to write, in my time, they say 'open your fingers' and they hit me. It's a crime. I hate the school, I hated to go to the school. I stopped to go to the school because they hit me. And more they hit you, more you don't learn. Unconsciously, you refuse to learn. With love, you obtain everything. (Sturm and Rabbath, 2005)

Some research (Dubanoski, Inaba, and Gerkowicz, 1983), cited in Youssef, Attia, and Kamel, (1998) has shown that such negative means of teaching students how to behave may actually make their behavior worse and be a poor philosophic choice for promoting learning. It might be deduced that the negativity of corporal punishment can be fatal to developing a love to learn. It appears that through his love of the bass and learning the bass Rabbath overcame this early trauma. It is possible this explains *why* love of the bass and *love to learn* became a philosophical tenet of the *Method*.

Philosophical tenet 7: The Student is the King

Teaching from the viewpoint of the student recalls Pestolozzi's and others' philosophy, the child-centered approach to education. Rabbath's philosophy cautions the teacher to consider every element of the lesson from the students' perspective:

A good teacher, he must be no one; that means, the kids, the lev, *the student*, he is the king. If you want to help someone, you must hold him in your arms and help him to grow up. Help him to grow up; to do that, you must be no one. For me, it is easy to come and say, 'Look! I know; you must do it like that', but how can he do it if he *doesn't know how* to do it;? or, if he *hasn't had the time*, how he can do it? (Sturm and Rabbath, 2005)

This statement suggests that choices for study repertoire could influence growth and careful consideration is needed in choosing level appropriate materials. The teacher and student must resist the urge to introduce repertoire that is too far beyond the present level. Such an urge, according to Rabbath, may reflect the teacher's viewpoint rather than the student's position.

While modeling is an accepted practice in music pedagogy (Berliner, 1986; Duke & Byo, 2011; Duke and Simmons, 2006), Rabbath advises the teacher not create an environment where the focus turns to the teacher as performer. Further, Berliner points out that while the teacher knows, on some level, what they are doing it is not always easily described:

Some of the first work on the study of expertise in pedagogy reveals that a great deal of the experts' knowing-in-action is due to the automation of procedures. These are the teaching routines that were described earlier.

These routines may be hardly noticeable to an expert teacher as they are hardly noticeable to expert athletes and musicians. In other words as

Gilbert Ryle has put it, knowing how, is a different kind of knowing than knowing *that*. (Berliner, 1986, p. 7)

Berliner seems to suggest, the expert player may not be able to describe all the components of a single, dynamic, musical gesture in pedagogic terms. The expert performer/teacher might understand how to dissociate components that have become automatized in their performance in order to identify, diagnose, and remediate any single component of complete gestures. Rabbath describes dissociation as *uncoupling of gestures*:

There is a tendency to want to use new movements and combine them too quickly with existent ideas. In fact, a movement can only be effective when the muscles that manage it have had the time to assimilate it into the 'muscular memory'. Each gesture must therefore be repeated independently for several minutes every day: in this way it will be integrated in a natural, quick and definitive way with techniques that have already been mastered. (Rabbath, 2012, p. XIV)

Rabbath has defined here *why* and *how* a teacher would ask the student to disengage with the music and uncouple the gestures so as to learn and assimilate techniques the music requires. While an expert player of the bass, Rabbath provides an explanation for *what*, *how*, and *why* he uses dissociation in his practice and pedagogy. To diagnose the problem, deconstruct the gesture to correct the flaw, and reconstruct the complete gesture demonstrates the ability to micro-manage a student's technique *when necessary*.

Teaching with the ability to dissociate one's movement habits might be the demarcation point between expert performer and expert pedagogue.

Philosophical tenet 8: Be Better Than Yourself

In America, "the process of music education is often colored by the competitiveness of our society" (Austin, 1990). Educational, sports, and performance arts research literature challenges stressing overt competition as misled or irrelevant to the growth of a musician. Austin's philosophical assessment of competition in music education is stark:

Clearly, competitive education contexts do not provide 'healthy' experiences for many students. Failure in competition leads the less talented, the less confident, and the less fortunate down motivational deadend streets. Preliminary research in music education, similarly, has provided no solid evidence to indicate that competition enhances musical or extra-musical growth among students. In truth, competition may be curtailing student achievement by making music educators less effective as teachers. (Austin, 1989, p. 24–25)

Martens, as cited in Robson (2004), goes further: "Competition is a social process that is so pervasive in Western civilization that no one can escape it (p. 160)." Dr. Bonnie Robsen's study revealed what research discovered on the profound affect competition has in sports and the performing arts (especially music and dance). From the lens of sports medicine and psychology, music and dance were examined to identify analogues from the phenomena that develop through philosophical, psychological and physical processes involved in sports training. Two opposing orientations to competition emerged:

Opinions vary on whether competition is good or bad for the developing child. Some believe that competitiveness is innate behavior and that

competition is a motivation for high achievement. Others believe that competition detracts from performance as the increased stress and anxiety lead to a decrease in focus and, perhaps, to a decrease in self-esteem, especially for individuals with an ego orientation (a focus on comparison with others) as opposed to a mastery orientation (focus on improvement of one's own skills). (Robson, 2004, p. 160)

For musicians, the effect of competitive music making is complicated:

Miller and Chesky, as cited in Robson, (2004) showed that cognitive anxiety tends to be higher in musicians and that it can be debilitating, especially for undergraduates and graduate women. Walker, as cited in Robson, (2002) reported on pre-performance anxiety and noted that it was associated with playing—related pain and visa-versa, that playing—related pain was associated with somatic anxiety but not cognitive anxiety. (p. 163)

Rabbath's philosophy on competition for the student and the teacher seems to point toward a *mastery orientation*.

Psychologically, never create any kind of obstruction. If you want to be better, be better than yourself, never better than somebody else, because each one has their own personality. You can never be better than somebody else but, better than you?....yes! every day. And you give hope forever. That is the psychology. (Sturm and Rabbath, 2005)

This is not to say competitive philosophy in the arts should not be considered or avoided. If we strive to foster the love of the bass, love of performing music, and love of learning first, as Rabbath advises, it appears the orientation toward competition needs clarity for

the teacher and the student. Kellett points out potential problems that come with competitive philosophy in music-making, especially for children:

Some school music programs place musical competition as an important part of the curricular goals. Various aspects associated with this type of environment could be detrimental to some students who wish to participate in school musicking through multiple opportunities that exist, but not within a competitive context. (Kellett, 2016, p.3)

As revealed in Morgan (2018), participants offered that the majority of Winter Guard International ensembles and their directors view competition as competition with self rather than competition with others (p.128). This finding supports that an inner competitive environment could be conducive to healthy musical experience as long as healthy philosophical orientation to competition exists. Murphy, cited in Robson (2004), explains further the two orientations toward competition found in sports:

An *ego orientation* to competition leads to comparison with others and a desire to win. Athletes with a *mastery orientation* want to improve their skills and become excellent. Low self-esteem was found to be related to ego orientation and hyper-competitiveness. (p. 162)

From this viewpoint, Rabbath's philosophy suggests the pedagogue should foster a mastery orientation for the student's healthy, long-term development. Research cited in Robson's study suggests competition from the ego orientation (as opposed to the mastery orientation) creates psychological (psychic) anxiety and somatic (physic) anxiety for the performing musician. Further, it shows that anxiety in performance can lead to pain, injuries, and developing syndromes such as chronic pain, chronic anxiety, chronic fatigue

and depression. This information may very well reveal why Rabbath created his *Physical* and *Psychological* philosophy for the double bass.

Philosophical tenet 9: The Benefits of Relaxation and Physical Exercise

When volume three, the training volume of the *Method*, was published in 1984, the topic of health and physical fitness related to performance art was relatively new in instrumental music pedagogy. As described earlier, Rabbath's philosophy of practicing two uninterrupted hours of scales through cycles is identified as how he built his technique in 6 years (Sturm and Rabbath, 2005; 2011). This approach was criticized by English bass pedagogue Rodney Slatford (Greenberg, 1999, p. 55) and might have created alarm for the effects of repetitive use issues.

Since the inception of the peer-reviewed journal *Medical Problems of Performing Arts* (MPPA) in 1986, a philosophy of wellness in performance art has steadily developed. A wealth of data has been acquired through inquiry into the etiology, diagnosis, treatment, and prevention of medical and psychological disorders related to training and performing in the arts. Research suggests that playing musical instruments can be dangerous without pedagogic oversight (Horvath,1994; Havas, 2001; Guptill & Zaza, 2010). Many instrumentalists experience playing-related pain as young as pre-high school age and a majority have encountered PRP as incoming college freshmen (Brandfonbrenner, 2009). Unfortunately, we have come to the point in research where there is consensus that ALL performing musicians are at risk for disorders of the neuro-muscular-motor system (Lederman, 2003). If this is so, it appears a philosophy for playing and teaching music and musical instruments must contain consideration and attention to maintaining physical health through knowledge for how the systems of the

body function. The psychology of training must be considered and managed by the player/pedagogue as well.

Rabbath recognized the physical and psychological challenges of playing the bass and shares with the player and pedagogue a philosophy for training the mind and body:

The muscular action of a double bass player can be compared to that of a first-class athlete; this must not be ignored. For this reason, we must take care of our body; relaxation and physical exercises are indispensable.

Daily training increases our capacity with regard to physical resistance as well as mental. (Rabbath, 1984, p. XIII)

It is obvious, when observing Rabbath's physique as a young man, he trained his body well (Greenberg, 1999, p. 78). Rabbath, when he wrote of the role of the body and muscles, asked "how can we demand performance from the members of the body if we don't really know how the body functions?" (Rabbath, 1984, p. VIII). This question seems to ask for a philosophy to guide choices for how to train, physically and psychologically, for playing the bass. Rabbath's philosophy advocates for control and flexibility of the muscles, rather than hypertrophy, as the most relevant philosophy for training the body to play the double bass (p. XIII).

Joseph Pilates, the inventor of the discipline now known as *Pilates*, called it "Contrology" and presented it philosophically as, "the art of controlled movement" (Pilates, 1945, pp. 12–14). Pilates involves a series of physical poses in motion that help to train, in particular, the core muscles so as to free the appendages from the role of balancing the body in space (Friedman and Eisen, 1980). Pilate's philosophy involves the mental and physical aspects of gaining overall mastery of the body in motion.

Rabbath's philosophy advises relaxation exercises to engage, learn to control and, "give independence to each muscle" (Rabbath, 1984, p. XIII). According to Rabbath, awareness of the role or passivity of specific muscles is crucial to fluidity and efficiency in playing the double bass. The breathing and meditative aspects of disciplines such as Pilates and Yoga might be considered aspects of *relaxation exercises* Rabbath alludes to.

It is the researcher's opinion that knowledge and application of the structure, function, and relation of the muscles to playing, singing, or teaching music is a necessary philosophic and pedagogic skillset. Asher's study sought to define potential synergies and benefits in the application of Pilate's philosophy and method for physical training to versatile and high-level voice performers in the context of, "The Olympic Singer" (Asher, 2009). Asher's research proposed that "singers trained with Pilates exercises that target specific muscle groups fundamental to the vocal process will develop better singing biomechanics and mind-body awareness during vocal performance" (p. iv).

Other philosophies of physical/psychological training that may have a beneficial effect for musicians, for example Tai Chi, have been studied for their efficacy in maintaining and improving tactile spatial acuity and slowing age related decline (Kerr, Shaw, Wasserman et al., 2008). Yoga, Tai Chi, and qigong are three ancient philosophies that combine rhythmic breathing with a series of postures or flowing movements: "The physical aspects of these practices offer a mental focus that can help distract you from racing thoughts. They can also enhance your flexibility and balance" (Corliss, 2016).

Research suggests the benefits of exercise can be seen in mental health (Callaghan, 2004; Landers and Arent, 2007; Paluska & Schwenk, 2007). Callaghan reported that, "There is evidence that exercise is beneficial for mental health; it reduces

anxiety, depression, and negative mood, and improves self-esteem and cognitive functioning" (p. 476). Anxiety, depression, and negative mood are examples of symptoms of performance anxiety (Chesky, & Fjellman-Wiklund, 2009; Hildebrandt, Nübling, & Candia, 2012; Sandell, Frykman, Chesky, and Fjellman-Wiklund (2009); Juwairiyah, Musib, & Shariff, 2013; Wesner, Noyes Jr., & Davis, 1989). Vina, Sanchis-Gomar, Martinez-Bello, and Gomez (2012) found the benefits of exercise would indicate efficacy of its clinical prescription for a wellness strategy to treat diseases and conditions such as depression and anxiety, common components of performance disorders.

Advocating exercises that help to identify engagement and disengagement of specific muscles in order to apply those perceptions to playing or singing music reveals a philosophy that contains *what* type of exercises, *how* to practice such exercises, and *why* it is important for the musician. Perhaps exercise and relaxation exercises might also provide relief from performance anxiety and that some form of physical exercise should be part of musicians' practice. Rabbath's longevity as a performer may be attributed to *why* he developed the philosophy that places importance on relaxation and physical exercises.

Philosophy Summary

Music provides the opportunity to bring forth and develop the character and individuality of each human being. Creative expression of a person's imagination should be an outcome of musical learning and activity. To develop students' ability for self-learning is a worthy goal for the pedagogue. Through deep reflection and pedagogic action, informed by a strong philosophical basis, a pedagogue can provide a physical and psychological skillset for the student to become a master of their performance for life. To

endeavor to accomplish these pedagogic goals without a rooted philosophy of the reason for, content of, and delivery of education is to exist in a tenuous position as a teacher, a position that may harm the child's imagination and inhibit development of her physical and psychological self-esteem.

It is the researcher's judgment that the efficacy of pedagogic practice must be grounded by a philosophical basis that explains *why* specific pedagogic techniques and materials are chosen for every instance of teaching. A philosophical basis for *why* a teacher prescribes a specific technical or musical solution indicates pedagogic research and practice has been done to analyze the problems that inevitably occur in music learning and performance. The importance of philosophy to, not only the success of a method to create musicians, but the successful creation of musicians that have skill, confidence, expressivity, love of music, empathy-that Dalcrozian "thing" that Rabbathian "thing"; that is the importance of philosophy for a method of music education. It is the responsibility of every music educator to develop a philosophy that first protects and nurtures the child's innate gifts and ultimately grows their personality, frees their imagination, and stimulates their creativity.

François Rabbath has shared his innate gifts with the world through his lifetime of creating and performing music. He has, further, shared a model for the process of becoming a master pedagogue for the creation of future artists and pedagogues. The aim of this research was to analyze and bring forth philosophically informed techniques and pedagogy from the lens of Rabbath and Rabbathians. Additionally, contents of this research may help further inform current and future performers and pedagogues who might choose to approach the double bass from the *Rabbath Method*. First-generation

Rabbathians were given the opportunity, through close interaction with Rabbath, to experience the philosophy and pedagogy of the *Method*. The current study provides evidence that Rabbathians apply the philosophies, techniques, and pedagogy of Rabbath in their teaching and performance of the double bass. The future, according to Rabbath's philosophy, depends on "sharing something, to say something to one to another, together, to say something for the public. I think it's most important, it's love, love each other" (Sturm and Rabbath, 2011)

CONCLUSION

This study traced the initial lineage from François Rabbath through his first-generation apprentices to determine how the *Rabbath Method* is interpreted and applied by current double bass performers and pedagogues. Data provided by 24 study participants revealed various answers to questions based on their own unique performance and pedagogic backgrounds. Despite some reported differences in pedagogic terminology, careful analysis of data provide evidence of unity for thought and action.

Most participants exhibit diverse performance and/or pedagogic practice.

Rabbathians have assimilated many of the philosophies and techniques of the *Method* into their performance and pedagogic practices. Although some pedagogic terminology especially that of *son premier* appears undefined, perhaps in the future the foundational terminology and components of *son premier* may be further explicated by Rabbath and/or Rabbathians. Improvisation is practiced and is deemed an important component of musicianship and pedagogic structure by Rabbath and most practitioners of the *Method*. The physical and psychological aspects of the *Method* have been shown to point toward a diverse set of fields of inquiry.

As revealed in this study the *Rabbath Method* provides a model for double bass performance and pedagogy, and more broadly musical instruction, that draws from a wide range of philosophies to provide a grounding for the physical and psychological approach to music. For the performer and pedagogue, to search for meaning in music for the pleasure and benefit of humanity, is the philosophy in action.

Recommendations for Future Research

Recommendations for future research include new studies in the biomechanics of double bass performance through Rabbathian performance pedagogy with support from evolving technologies. The *scale cycle* training theory of Rabbath appears to call for observation over time so as to determine its efficacy for broader application. As such, research into philosophies and educational techniques for developing kinesthetic sense through music learning methods such as Dalcroze Eurhythmics is suggested. Research into assimilation of the *Rabbath Method* to larger settings such as public-school string programs might provide evidence that the *Method* is appropriate for the other instruments of the string orchestra. Longitudinal study could garner data to reveal how training at a young age in the laws and foundations of the *Method* affect long-term development of the individual's musicianship and character. Future study may also reveal how the philosophies, techniques, and pedagogy of the *Method* evolve after the time of Rabbath.

Continued development and dissemination of philosophies and pedagogy of the *Rabbath Method* through practice and scholarship by Rabbath and his apprentices could, according to Rabbath, develop hope for a future where playing music continues to serve humanity while providing a context that may illuminate further what it means to be human. Such can be the outcome of a technical and pedagogical approach to playing and teaching a musical instrument guided first and throughout by a philosophy in action.

APPENDIX A

Qualitative Data Techniques and Philosophies Emphasized by Rabbathians

Question: Can or should the techniques and philosophies found in the *Rabbath Method* be assimilated to a public-school setting?

- Yes, in a perfect world!
- Absolutely
- This is more challenging because it requires a teacher trained in the *Rabbath Method*
- It requires someone with sufficient training to do so
- Of course!
- Many principals of the *Method*, if well experienced and presented, are invaluable
- Sure
- Yes
- Especially for learning the bow
- Yes. I believe the techniques would be great for all string players' students to have some exposure to, especially the approach to learning the bow
- For all students, the goal of creating a beautiful and open sound as a first step should be a priority
- Introduction to Rabbath's philosophical world-view would be good for students to hear
- Being better than yourself would be a healthier way for students to interact with one another
- Techniques and philosophies are applicable to all stringed instruments
- Techniques and philosophies do not conflict with current pedagogy
- Group learning situations are at least as important as one to one lessons
- The solo bass playing aspect of Rabbath makes it harder for the public-school setting
- The better programs have a solo and ensemble state program
- The connection of students from the same age group is vital to growth as human beings
- Through both individual lessons for beginning bassists and group techniques classes for independent intermediate students taught by bass specialists
- Definitely
- Yes, and I think it could apply to all string players

- They encourage musicality and enable the beginning bass player to perform in public
- Of course. It makes it easier to play bass, especially for beginners
- I'm not qualified to answer this, I do not currently teach

APPENDIX B

Question: What do you consider the most important philosophical aspects gained

from studying with Rabbath that affect your teaching and performance

practice?

Participant responses:

• Lately I realize it would have to be Rabbath's emphasis on "Love"

- The bass, she will save your life
- Ease of performance, joy of expression
- Honesty of music making and self-expression, non-competitive self-improvement, love
- Take responsibility for the sounds you make
- Pour faire plaisir" (Do[play] to please), to give pleasure, is the highest philosophical aspiration
- We do not need to show ourselves, but to love the listener
- Music is a gift we share
- Musical communication is more important than a single person's perspective and there are many things to worry about in this world, but music is not one of them
- Don't be better than another, be better than yourself
- You cannot be another person
- The ideal to uphold the spirit and creativity of the individual without ever crushing the student's spirit
- Freedom to interpret and re-interpret
- Each one is unique
- A focus on individual development and artistry rather than on competition and external achievement
- As far as teaching, framing things positively rather than negatively
- Don't be afraid to make a mistake
- That all is possible, the responsibility of work.
- Intuitive learning and creative problem solving
- The technique is designed to offer the technical freedom to create and be one's own unique self
- There can be great joy in having multiple ways to address any musical challenge.
- Create musical solutions to complicated musical challenges
- To not throw any concept away always remain open to new ideas
- One is, always learning and growing
- To always improve and, be better than yourself
- Everyone's potential for growth into their own being as a musician

- Focus on personal growth
- The idea of time, and the process of growth, over a period of years (time)
- Each day climbing another step Son-premier and the richness of sound
- Son Premier
- It's all about the tone
- the encouragement to make the bass sing
- It takes all the technique in the world to make one beautiful note
- The physical laws of movement, space and time for the left arm and weight, speed and placement for the right arm
- Your body is your instrument
- Really caring about your playing and body works
- A "physical approach" to string playing
- Musical training like an athlete

APPENDIX C

Question: Which of these philosophical aspects do you emphasize to your students?

- I find resonance with virtually all of his philosophies and share them when appropriate
- ALL of them and regularly
- All of these and more!
- All of them, but particularly the joy of demonstrating the beauty of the voice of this often- ignored instrument
- This aspect of time. What cannot be achieved today...etc...I've learned that this is unequivocally true
- It is not difficult, you have to know how
- The ease of playing the double bass
- The ones I mentioned above (Ease of performance, joy of expression)
- Playing in tune is a state of mind, very connected to the Physical
- "Pour faire plaisir" (Do[play] to please), to give pleasure, is the highest philosophical aspiration
- The students need to perform, and they need inspiration to keep moving forward
- Less competitive approach
- Focus on personal growth
- Awareness, exploration, meditation and love
- Throw your ego out the window!
- Concentrate on being better than yourself, not others
- Be uniques
- Don't TRY
- Son premier and the richness of sound
- You need all the technique in the world just to play one (beautiful) note
- A physical approach to string playing
- I teach my students to maintain fitness as musical athletes through proper strengthening and stretching exercises
- Take responsibility for the sounds you make
- Not much into philosophy. Knowing how to play your instrument is the philosophy

APPENDIX D

Question: What do you consider the most important technical aspects of the

Rabbath Method that affect your teaching and performance

practice?

Participant responses:

• I would say it's an understanding and consciousness of our body, mind, and interplay between the two

- Separating left and right brain-left and right hand-while playing scales
- The main thing is freedom and open mind
- Train your body and mind to respond ONLY to what you choose
- A continual deepening of the relationship between the musician and the instrument so that technical aspects have less and less influence on musical interpretation and expression over time
- The most important technical aspect of the *Rabbath Method* is play freely without tension
- Balance of tension and relaxation
- The use of weight vs muscle, and the concept of relaxed postural alignment
- Use of natural body weight, and balanced skeletal/physiological comportment
- Physical issues like posture, bow control, relaxation and endurance
- The idea that the instrument must fit your body (not the other way around)
- I find the emphasis on posture and healthy muscle usage to be fundamental
- The bent endpin
- Understanding and being the master of your physical, emotional and mental self
- Learning takes as long as it takes. It is complicated greatly by forcing or insisting on immediate results
- Gradually and incrementally building endurance over the course of many years ultimately helps improve speed and agility
- The use of endurance in training
- The simplest exercises are the most important
- Learn music away from the instrument through singing, score study, and visualization using one's kinesthetic imagination
- Approaching technique work as a yogic practice that incorporates varied combinations of hand shapes and bow-strokes
- Systematic practice with pre-determined intent. Don't try to be clever all the time; good study involves making yourself stupid (temporarily!) Crab, pivot
- Concept of sound; placement of the bow
- Bow arm mechanics and left-hand flexibility

- Son Premier
- François helped me develop a deep understanding of how to use the bow
- That the bow is just an extension of the body
- All of it! But especially his bow technique
- Bow technique
- Speed, weight, placement to make the perfect sound
- The 3 parameters of the bow: Placement, speed, weight
- The use and placement of the bow
- The bow—open strings—position, angle, weight/speed relationships for maximum resonance in sound
- Suppleness of the right hand
- Playing open strings
- Movement, Space, and Time to achieve the perfect left hand
- His concept of space, movement and time
- The pivot system for division of the fingerboard based on the location of the harmonics
- Using the harmonic series as a basic guide to positions
- Awareness of sympathetic vibrations of the instrument for intonation guidance
- Absorbing many fingerings gave me so much more freedom with the bow (More you have, the more you are rich)
- Pivot
- Pivoting
- Crab
- The multi fingerings of the scales and the technique to play the entire range of each string

APPENDIX E

Question: Which of these technical aspects do you emphasize to your students?

- All
- All
- As above—ALL!
- It depends on their level. All of them
- ALL
- See above
- All of the above in reverse order. Placement of bow, concept of sound, pivot, crab, good study involves making yourself stupid, don't try to be clever, systematic practice with predetermined intent
- I have adopted Rabbath's aversion to etudes that wouldn't be performed in public
- Learn the music away from the bass through eurhythmic activities like singing, conducting, or clapping
- Freedom, belief in one's self
- Being prepared with many solutions
- I emphasize tensionless (free) playing
- How subtle changes to physical technique can result in substantive changes to the sound of the instrument
- Teach technique using shapes for each interval in the left hand and curves for each string crossing pattern in the right hand
- The beautiful sound aspect which should be above all issues
- Creating a beautiful sound with the bow, and doing it as relaxed as possible
- A consistent focus on development of suppleness and sound production with right hand is probably my most consistent emphasis
- The bow is the most important thing to emphasize so speed, weight, and placement starts every lesson. Then I think about Rabbath's work on posture second. Third I think left hand
- I try to teach my students that the bow is not just a means to an end. That the bow is everything and we are constantly short changing the potential sound we can achieve
- The 3 parameters of the bow: Placement, speed, weight
- Bow technique
- Son Premier and MST
- Son premier, natural body weight
- None in particular. It depends on what the student needs

APPENDIX F

Question: Do you include improvisation in your teaching and performance practice?

- Sure
- Absolutely
- Yes, I teach graduate bass majors and emphasize improvisation, both as an improvising accompanist and soloist
- Yes
- Yes—students are also encouraged to 'transcribe'—from varied sources
- Almost never in lessons. I'm occasionally hired to improvise noises, which is nice
- I do a little improvisation if the occasion calls for it, but tend to mostly play pieces that are composed
- Not very much but a little
- Not really but I have students who do it Yes
- Yes. I think it's very vital to Rabbath's achievements musically
- Yes. As Janis Joplin said, "I don't write music, I make it up"
- Yes
- Yes
- My Doctoral thesis will be a pedagogical manual for learning to improvise cadenzas in live performance of classical bass concertos
- No
- No
- I do. I try to get the students to not see mistakes, but possibilities
- Yes
- Yes
- Yes
- Occasionally
- Yes
- Yes, but not enough! Improvising is a problem for most orchestral players
- Yes, but particularly in my teaching where students are not yet bound by the constraints of their profession

APPENDIX G

Question: How is this improvisational aspect influenced by the *Rabbath Method*?

- François always recommends improv
- Through the idea that each human is an artist eternal, essential, and sacred that no matter the age or the level, the implicit need to connect and communicate through the abstract nature of sound is an innate human trait, and worthy of every consideration, and fundamentally essential for carrying human experience and elevating the human condition
- I endeavor to help students find and realize their own voices. By keeping an open mind and tension free body when playing, students have the opportunity to explore their full potential
- Practicing with a drone and using available open strings and harmonics as a guide to both intonation and tone production
- FR grew up improvising in the varied ethnic musical styles and writes much of his own music that way
- Not at all
- Rabbath's openness and creativity inspire me to approach music as a true living art form it's never static and is always changing, much as we all are
- Freedom of expression and technical connection to the nervous system and the imagination
- The freedom and movement around the bass always helps this aspect
- Rabbath is an improviser by nature and a classical composer second
- Not so much actually; I've been making stuff up all my life! It was the freedom of technique and expression in François' playing that attracted me to him. These things are, however, very hard won; you can't make everything up
- The *Rabbath Method* offers a thorough approach to exploring the instrument from a place of connection and awareness rather than domination, which I found to open the doorway to learning all the sounds an instrument is capable of making, and adding them to the toolbox rather than dismissing them as wrong/mistakes. The extensive study of the scales in Book 3 gives such a thorough command of the fingerboard it opens possibilities of freedom of facility to be able to directly connect imagination to execution
- Free the spirit through technical flow
- When I met François at (. . .) in 2010, he encouraged each bass student to improvise over a drone during an introductory jam session on the first day. That

early start led me to explore the various manifestations of improvisation in the classical repertoire

- No
- No
- When I play at retirement homes, I will often improvise over open string drones. This was definitely influenced by François! Ha Ha
- Not sure actually!
- Knowledge of the different scales (modes)
- With François, one has the impression that he needs only his bass and bow to
 perform music. Everything else comes from the heart and music can be made at
 anytime and anywhere whether you are using the framework of a previously
 composed work, or your own extemporaneous composition
- Scale and arpeggio work facilitate ease of performance and recall for improv.
- The *Rabbath Method* has allowed me to develop physical ease playing the instrument and has given me the means to explore every region of the fingerboard and the technique to explore as many different timbres and techniques with the bow as I can imagine. This constantly widens the imaginative territory I have to work with in my improvising
- Rabbath is unique in that his playing knows no musical boundaries. He can and has played such a broad range of repertoire and styles. He will take something that catches his eye (ear) and improvise and compose around it. So I think his technique and style has developed because of this. In a way he's the old style 18th and 19th century virtuoso/composer which is rare these days. I guess knowing a little of his *Method* should allow one to improvise freely
- Having seen how Rabbath improvises on his own published material and with a technical freedom enhanced by the *Method*

APPENDIX H-RABBATH INTERVIEW TRANSCRIPT

September 19, 2018

Researcher: François, we will be recording this interview for inclusion in my study.

Researcher: Can the *Method* be assimilated in the Public School?

I think teaching in the school is the most important thing for the beginner, because if the beginner, if the young people, have a good teacher in the school, it will be for the future, something incredible.

But the teacher must be a very good teacher to teach the fundamentals. However, most of the teachers play different instruments and they teach, más o menos (more or less), the *Method*. I think that is the wrong way to think about that. Teaching young people is more important than master teaching because the *debut* of each young person is more important than later. When the foundation is wrong, everything will be wrong later. When the foundation is good, you can build the student without stopping and that was my thought. Yes, you can teach the *Method* for any level but, the teacher must be at the level that they understand my technique and (then) teach it. That is my opinion.

Researcher: Is your *Method* relevant for all the string players?

Now, I am teaching cellists, violinists, and violists my *Method* and, with Hans Sturm, we are developing the *Method* for teaching all the strings. I discovered how Paganini played and instinctively, I found out with my *Method*, how it must be done, and it helps everybody. The important thing is the teacher must know how to teach the foundation. Now, we are thinking, everything is based in the physical laws, everything; The physical laws are the most important things the teacher must know (and understand) because, the physical laws are everything, everything. For example, the 440 vibration for 'A' is a physical law; you must know that. So, *some* might teach by (*from?*) an approach but without understanding. The teaching philosophy is, we must teach the physical laws in our approach from the technique; everything is based upon that. So, if you understand that, everything changes. We are working with Hans to explain all that.

Researcher: What about improvisation?

Improvisation is part of the (musician's) knowledge. Because if you can improvise, it will help you to become a composer. What is improvising? It is composing, in the moment, something. When I began to improvise, it helped me to become a composer later.

Because in improvising, you begin to build a melody and it (to *know how* to improvise) is very important. It is not just improvising on something (anything?), no. You compose a melody when improvising but you must know how to do that. And many musicians don't know how to do that and that is bad, because, we don't help them to understand meaning in music. When you improvise you understand also. (Improvisation may help you to understand meaning in music) It is very important.

Researcher: Does improvisation help to improve expressivity?

It helps everything, you can express yourself. When you improvise, you begin to become a composer by a small fraction of (what composing is, in as little as) one month, or one line. 7:10 And you understand better; when you have the ...of any kind of music, you begin to understand *how* it was done when you improvise yourself. And you begin to write, even if it's just one line, it is enough to begin to understand how you can make it (music). If you do not improvise, you can never do that.

Yehudi Menuhin, it was his dream to improvise. That is why he played with the violinist Stephan Grapelli. But, it was further, his dream to compose, why? Because he felt that. I know, because we talked about that.

It (improvisation) is very important. How do classical musicians not understand that? It is one part of the music, voilá!. You cannot have a complete understanding of music if you don't improvise some yourself.

What did he do, Bach? He improvised, but not just improvised, he was improvising and composing his style. If you see in my music, if you see, when I play the part of improvising; in the beginning I improvise and I repeat it every time the same, it becomes composed. And I think he (Bach) knew that also, because it was in his blood, it was the way how he composed. He can do it forever. And now, I understand his way to do it, and I can play, *ala Bach* many things.

Give me three notes and I can do that. But that is because he (Bach?) I knew how to improvise. I learned how to improvise. When I was young I was in the orchestra, before I learned how I play currently, I was improvising jazz because I needed to, they give me solos and I had to do something. And it helped me a lot. I became a composer because of that.

When you see, in my master classes, sometimes I make a drone and I say to each one of them, 'do that' (improvise). Some people say, 'I don't know what to do', I say do scales, do what you do, just one note. Young people must know how to do that, for them it is a

joy; at the same time they learn how to be a musician. Because, they listen; when they listen, they will do their best to make a phrase in the chord. You open the mind; improvisation is very important, voilá!.

In response to researcher's question of conducting research on son premier:

You know, in education, the *son premier* is to educate someone, to say, 'use your ear'. What is the *son premier*? You begin to listen and, the first professor of us, it's our ear. It is not me or anyone, it is our ear. When I began to play, I didn't have any professor, I was hearing myself. I was not just trying, I was there doing it and hearing what I was doing, and my ear helped me to understand what I was doing.

Researcher: Thank you, very much, Maestro Rabbath, for your contributions to this study!

APPENDIX I-WEB SITE WELCOME PAGE

Dear Colleague,

My name is David Pellow. Your name is included in a list of diploma holders from the L'Institute International de la Contrabass de Paris made available to me by Maestro Rabbath. My doctoral research project concerns the lineage, philosophy, and pedagogy of the Rabbath method for double bass. I hope you will strongly consider participating in this research as you belong to a very unique group of artist/pedagogues who have studied directly with François Rabbath.

As a first-generation pupil of Rabbath you have received pedagogic and/or performance philosophies from the creator of the method. My study aims to examine the pedagogic and performance practice of first-generation *Rabbathians* (those who have studied closely with Rabbath and hold diplomas from his institute).

Please click on the questionnaire link in the menu bar to participate in the study.

APPENDIX J-ABOUT THE RESEARCHER WEB PAGE

About the Researcher web site page

David Pellow is another in the esteemed and historic lineage of musical artists to come from Pittsburgh, Pennsylvania, USA. His primary teachers at Duquesne University and Carnegie Mellon University were Robert Leinenger and Anthony Bianco, first desk players in the Pittsburgh Symphony. Pellow holds the Teaching and Performance Diplomas of *L' Institute International de la Contrabass de Paris*.

Pellow has toured the United States and Japan with various groups and been featured on numerous recordings as a sideman. He has performed with theatre companies in Pittsburgh and Hattiesburg, MS, the Pittsburgh Symphony Pops, regional Western Pennsylvania orchestras, and the Mississippi Bicentennial Festival Orchestra. Artists accompanied in these environments include Keith Lockhart, Eugene Rousseau, Ray Charles, Tommy Tune, Red Skelton, Steve Allen, Joan Rivers, Don Rickles, Regis Philbin, Patty Page, Perry Como, et al. Pellow has performed with legendary jazz artists including, Billy Eckstine, David Liebman, Jimmy Ponder, Joe Negri, Roger Humphries, Joe Harris, Chris Conner, Dianne Schurr, Bucky Pizzerelli, Warren Vaché and Nathan Davis, among many others.

In collaborative performance with The Pillow Project, an improvisational dance company, Pellow was hailed as an "improvisational master" by the Pittsburgh Post-Gazette. At the University of Southern Mississippi, Dave continued his work in musical improvisation and dance through a 2015 collaboration between the Schools of Music and Dance entitled, *Waterloo Wanderings*.

As an educator Dave played jazz for every third and fifth grader in the Pittsburgh Public Schools from 1991–98, through a program offered by The Manchester Craftsman's Guild. At Carnegie Mellon University, Pellow was Artist Lecturer in Double Bass, Teaching Professor, and Director of Jazz Studies from 1994 to 2009.

APPENDIX K-RESEARCH SYNOPSIS WEB PAGE

Research Synopsis

Tracing pedagogical lineages demonstrates how knowledge is passed down from teachers to future generations of students, and how the ideals and philosophies of teachers are made manifest in the lives and work of their students (Taranto, 2010).

This research asks, 1.) What are the essential philosophical and technical tenets of the Rabbath method, according to the author. 2.) How are Rabbathians applying the pedagogical and philosophical tenets of the method. 3.) How are these tenets developing through the practice of first-generation Rabbathians"?

It is hoped knowledge gained from this study will guide future research as to how the techniques and philosophies inherent in the Rabbath method are being maintained and developed for future music educators, double bass pedagogues, performers, and students.

APPENDIX L-RESEARCH QUESTIONNAIRE

What year did you earn the diploma of the L'Institute International de la Contrabass de Paris ?

Where do you teach? Please include all organizations or teaching situations.

What genres of music do you play professionally?

Approximately how many students have you taught using the Rabbath Method?

From Which Volumes of the Method did You Study with Rabbath?

From Which Volumes of the Method do You Teach?

Do You Include Repertoire of the Rabbath Method in Your Performance and/or Your Students' Performances? Which Repertoire do You Prefer?

From which double bass methods other than the Rabbath Method do you teach, if any?

Have you created your own double bass methodology, compositions, arrangements, or editions of repertoire? Describe.

Can or should the techniques and philosophies found in the Rabbath Method be assimilated to a public-school (PS) setting?

What do you consider the most important philosophical aspects gained from studying with Rabbath that affect your teaching and performance practice?

Which of these philosophical aspects do you emphasize to your students?

What do you consider the most important technical aspects of the Rabbath Method that affect your teaching and performance practice?

Which of these technical aspects do you emphasize to your students?

Do you include improvisation in your teaching and performance practice?

How is this improvisational aspect influenced by the Method?

APPENDIX M-IRB APPROVAL LETTER



INSTITUTIONAL REVIEW BOARD

118 College Drive #5147 | Hattiesburg, MS 39406-0001 Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional.review.board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

The risks to subjects are minimized.
The risks to subjects are reasonable in relation to the anticipated benefits.
The selection of subjects is equitable.
Informed consent is adequate and appropriately documented.
Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
Appropriate additional safeguards have been included to protect vulnerable subjects.
Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 18050108

PROJECT TITLE: The Rabbath Method: Lineage and Application of Philosophy and Technique in

Current Double Bass Pedagogy PROJECT TYPE: Doctoral Dissertation RESEARCHER(S): David Pellow

COLLEGE/DIVISION: College of Arts and Letters

DEPARTMENT: Music Education FUNDING AGENCY/SPONSOR: N/A

IRB COMMITTEE ACTION: Exempt Review Approval PERIOD OF APPROVAL: 05/07/2018 to 05/06/2019

Lawrence A. Hosman, Ph.D. Institutional Review Board

BIBLIOGRAPHY

- Allsup, R. (2010). Philosophical perspectives of music education. In H. B. Abeles & L. Custodero (Eds.), *Critical issues in music education*, 39–60. New York, NY: Oxford University Press.
- Asher, V. K. (2009). *The olympic singer: Integrating Pilates training into the voice studio*. UNLV Theses, Dissertations, Professional Papers, and Capstones. https://digitalscholarship.unlv.edu/thesesdissertations/1199
- Austin, J. R. (1990). Competition: Is music education the loser? *Music Educators Journal*, 76(6), 21–25. https://doi.org/10.2307/3400964
- Austin, J. R. (1989). Competitive and noncompetitive goal structures: An analysis of motivation and achievement outcomes among elementary band students.
 (Ann Arbor, MI: University Microfilms, 1989), 89–13151. 11.
- Barbé, T. (2016). *The double bass: A viola-cello? The saga of actual evolutions*.

 Retrieved from http://www.thierrybarbe-contrebasse.com/?page_id=13
- Ben-Zaken, A. (2011). *Reading Hayy Ibn-Yaq z ān : A cross-cultural history of auto-didacticism*. Baltimore, US: Johns Hopkins University Press. Available from https://books.google.com
- Berliner, D. (1986). In pursuit of the expert pedagogue. *Educational Researcher*, 15(7) 5–13. https://doi-org.lynx.lib.usm.edu/10.3102/0013189X015007007
- Billè, I. (1922). Nuovo metodo per contrabasso. Milan: Ricordi.
- Bowman, W. (2011). Visiting professor of music education: Dr. Wayne Bowman.

 Retrieved from https://steinhardt.nyu.edu/music/education/faculty/bowman

- Bowman, W. D. (1998). *Philosophical perspectives on music*. New York: Oxford University Press.
- Callaghan, P. (2004). Exercise: A neglected intervention in mental health care?

 *Psychiatric and Mental Health Nursing 11(4), 476–483.

 https://doi.org/10.1111/j.1365-2850.2004.00751.x
- Calter, P. (2008). *Squaring the circle: Geometry in art and architecture*. Emeryville, California: Key College Pub
- Campbell, P. S. (2010). Forward. In Shippers, H., Facing the music: Music education from a global perspective. New York: Oxford University Press, Inc.
- Chapman, R. (1992). Auto-didacticism and the desire for culture. *Nottingham French Studies*, *31*(2), 84–101. Retrieved from https://www.euppublishing.com/doi/pdfplus/10.3366/nfs.1992-2.008
- Corliss, J. (2016, September). Six relaxation techniques to reduce stress. *Harvard Health Publishing*, 1–2. Retrieved from https://www.health.harvard.edu/mind-and-mood/six-relaxation-techniques-to-reduce-stress.
- Creswell, J. W. (2013). Qualitative inquiry and research design: Choosing from five approaches. Los Angeles: SAGE Publications.
- Cribiore, R. (2005). *Gymnastics of the mind: Greek education in Hellenistic and Roman Egypt*. Princeton, N.J., Oxford: Princeton University Press.
- Csikszentmihalyi, M. (1991). Flow: The psychology of optimal experience. New York, NY: Harper Perennial.
- Csikszentmihalyi, M. (1975). Beyond boredom and anxiety: Experiencing flow in work and play. San Francisco: Jossey-Bass.

- Dahmer, S. (2017). Re-editing Isaia Billè's 24 studi-capricci per contrabasso a 4 corde

 to modern notation for double bass. Available from ProQuest Dissertations

 & Theses Global. (1894213901). Retrieved from

 http://lynx.lib.usm.edu/login?url=https://search.proquest.com/docview/18942139

 01
- Dalcroze, E. J. (1921). *Rhythm, music and education*. (translated from the French by Harold F. Rubinstein . . . Jaques-Dalcroze, Emile, 1865-1950) New York: G. P. Putnam's sons.
- Dalton, D. (1988). *Playing the viola: Conversations with William Primrose*. Oxford New York: Oxford University Press.
- Darling-Hammond, L. and Youngs, C. E. (2002). Defining "highly qualified teachers": What does "scientifically-based research" actually tell us? *Educational Researcher*, 31(9), 13–25.

 https://doi.org/10.3102/0013189X031009013
- Dewey, J. (1897). My pedagogic creed. *The School Journal*, *54*(3), pp. 77–80.

 Retrieved from: http://dewey.pragmatism.org/creed.html
- Dewey, J. (1902). The Child and the curriculum. Chicago: University of Chicago Press.
- Dewey, J. The School and Society. *The middle works*, 1899–1924: (Vol. 1). Edited by Jo Ann Boydston, SIU press. (1976), pp. 1–109.
- Dewey, J. (1907). Three Years of the University Elementary School. [chapter 4] *The school and society*. Chicago: University of Chicago.
- Dewey, J., and Dewey, E. (1915). *Schools of tomorrow*. New York: E. P. Dutton & Company.

- Dewey, J. (1916). *Democracy and education*. New York: McMillan. Dover 2004 edition Mineola, N.Y.: Courier Corporation.
- Dewey, J. (1928). Body and mind. *Bulletin of the New York Academy of Medicine*, 4(1), 3–19. doi.N/A. PMID: 19311595
- Dugan, E. (2007). Collaborations form a vital future. *The Standard*, *1*(1–2).

 Retrieved from https://www.vicon.com/file/vicon/vicon-standard2007.pdf
- Duke, R. A. (1999). Teacher and student behavior in Suzuki string lessons: Results from the International Research Symposium on Talent Education. *Journal of Research in Music Education*, 47(4), 293–307. Retrieved from: Stable URL: http://www.jstor.org/stable/3345485
- Duke, R. A. & Simmons, A. L. (2006). The nature of expertise: Narrative descriptions of 19 common elements observed in the lessons of three renowned artist

 —teachers. *Bulletin of the Council for Research in Music Education, 170*(Fall)

 7–19. Stable URL: http://www.jstor.org/stable/40319345
- Duke, R. A. (2012). Their own best teachers: How we help and hinder development of learner's independence. *Music Educators Journal*, 99(2), 36–41. https://doi.org/10.1177/0027432112458956
- Duke, R. A., & Byo, J. L. (2011). *The habits of musicianship: A radical approach to beginning band*. Retrieved from https://cml.music.utexas.edu/online- resources/
- Dutoit, C. L. (1971). *Music movement therapy*. London: The Riverside Press Ltd.
- Elliott, D. J. (nd). What does PRAXIAL mean? Retrieved from http://www.davidelliottmusic.com/music-matters/what-does-praxial-mean/

- Elliott, D. J. (1995). *Music matters: A new philosophy of music education*. New York: Oxford University Press.
- Ernst-Berendt, J. (1988). The third ear. New York: Henry Holt and Company.
- Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, *100*(3), 363–406. https://doi:10.1037/0033-295X.100.3.363
- Erwin, J., Horvath, K., McCashin, R. D., Mitchell, B. (2006). *New Directions® for strings: A comprehensive string method*. Fort Lauderdale, Florida: The FJH Music Company.
- Fanelli, M. (2008). A life of self-discovery and passion for the double bass and teaching. *American String Teacher* 58(4), 30–35. https://doi.org/10.1177/000313130805800405
- Fanelli, M. (2009). A life of self-discovery and passion for the double bass and teaching. *American String Teacher* 59(1), 30–33. https://doi.org/10.1177/000313130905900106
- Fanning, E. (2005). Formatting a paper-based survey questionnaire: Best practices. *Practical Assessment Research & Evaluation*, 10(12). Retrieved from http://pareonline.net/getvn.asp?v=10&n=12
- Fischbach, G., and Frost, R. (2003). Artistry in strings. San Diego: Kjos Music Press.
- Fray, D. (1981). Physiological studies in string playing. *American String Teacher*, 31(1) 33–38. https://doi.org/10.1177/000313138103100114
- Friedman, P., and Eisen, G. (1980). *The Pilates method: Physical and mental conditioning*. New York: Penguin Group.

- Galvao, A., & Kemp, A. (1999). Kinaesthesia and instrumental music instruction: Some implications. *Psychology of Music*, *27*(2), 129–137. Retrieved from http://lynx.lib.usm.edu/login?url=https://search.proquest.com/docview/1338442? accountid=13946
- Galamian, I. (1962). *Principals of violin playing and teaching*. Englewood Cliffs: Prentice-Hall Inc.
- Gartlehner, G., Hansen, R. A., Nissman, D., et al. (2006). Criteria for distinguishing effectiveness from efficacy trials in systematic reviews. Technical Reviews, 12

 (1). Rockville (MD): Agency for Healthcare Research and Quality (US).

 Retrieved from: https://www.ncbi.nlm.nih.gov/books/NBK44024/
- Goldsby, J. (2002). *The bass tradition: Technique and tradition*. Winona, MN: Hal Leonard Corporation.
- Gordon, E. (1999). All about audiation and music aptitudes. *Music Educators Journal*, 86(2), 41–44. https://doi/10.2307/3399589
- Gordon, E. E. (2008). Gordon Institute of Music Learning *Edwin E. Gordon, about*.

 Retrieved from http://www.giml.org/audiation.php
- Gordon, E. E. (2008). Gordon Institute of Music Learning *Audiation*.

 Retrieved from http://www.giml.org/audiation.php
- Gordon, E. E. (2015). Space audiation. Chicago, IL: GIA Publications, Inc.
- Greenberg, M. (1999). François Rabbath: His career in documents. (Master's Thesis presented at the Université de Paris-Sorbonne Paris IV, U.F.R.) de Musique et Musicologie, 1998).

- Guptill, C., and Zaza, C. (2010). Injury prevention: What music teachers can do. *Music Educators Journal*, 96(4) 28–34. Retrieved from https://www.jstor.org/stable/40666426
- Haddon, E. (2014). Observational learning in the music master class. *British Journal of Music Education*, 31(1) 55–68. https://doi.org/10.1017/S0265051713000223
- Handel, S. (1993). *Listening: An introduction to the perception of auditory events*.

 Cambridge, Mass: MIT Press.
- Havas, K. (2001). *The teaching of tone production*. A New Approach to Violin Playing. London: Bosworth & Co. LTD.
- Havas, K. (1973). Stage fright Its causes and cures with special reference to violin playing. London: Bosworth & Co.
- Hendricks, K S. (2011). The philosophy of Shinichi Suzuki: Music education as "Love Education" *Philosophy of Music Education Review*, *19*(2), 136–154.

 www.jstor.org/stable/10.2979/philmusieducrevi.19.2.136
- Hetland, L. (2000). Learning to make music enhances spatial reasoning. *The Journal of Aesthetic Education*, 34(3/4),179–238. doi: https://10.2307/3333643
- Hildebrandt, H. M.D., M.A., Nübling, M., PhD, & Candia, V., PhD. (2012). Increment of fatigue, depression, and stage fright during the first year of high-level education in music students. *Medical Problems of Performing Artists*, 27(1), 43–48.
 http://lynx.lib.usm.edu/login?url=https://search.proquest.com/docview/12667712

14

- Hodgson, P. (1934). Motion study and violin bowing. London: J. H. Lavender & Co.
- Horiguchi, Y. (n. d.). Progressive repertoire book 1: An in depth analysis [Blog post]. Retrieved from https://doublebassblog.org/2017/09/progressiv-repertoire-post
- Horvath, J. (2010). *Playing less hurt: An Injury prevention guide for musicians*.

 Milwaukee, WI: Hal Leonard Corporation.
- In Memory, George Vance (2009). Retrieved from https://www.isbworldoffice.com/in
 -memory.asp
- Jorgensen, E. R. (1990). Philosophy and the music teacher: Challenging the way we think. *Music Educators Journal*, 76(5), 17–23.
- http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=9705221201 &site=ehost-live
- Juntunen, M., & Hyvönen, L. (2004). Embodiment in musical knowing: How body movement facilitates learning within Dalcroze Eurhythmics. *British Journal of Music Education*, 21(2), 199–214. doi: https://10.1017/S0265051704005686
- Juwairiyah B. Z, Musib H. B., Shariff S. M. (2013). Overcoming performance anxiety among music undergraduates. *Procedia-Social and Behavioral Sciences*, *9*, 226–234 https://doi.org/10.1016/j.sbspro.2013.07.086
- Karp, J. (1981, April 26). A great violin teacher. The New York Times, 2002019.
- Keay, L. M. (2018). A content analysis of flow and music: Teaching, performance, and consumption (Order No. 10837726). Available from ProQuest Dissertations & Theses Global. (2091445813). Retrieved from
 - http://lynx.lib.usm.edu/login?url=https://search.proquest.com/docview/20914458

- Kellett, J. S. (2016). Student perspectives on the music-learning culture in a competitive high school music program in the United States (Order No. 10101049).

 Available from ProQuest Dissertations & Theses Global. (1785393452).

 Retrieved from

 http://lynx.lib.usm.edu/login?url=https://search.proquest.com/docview/178539345

 2?accountid=13946
- Kerr, C. E., Shaw, J. R., Wasserman, R. H., et al. (2008). Tactile acuity in experienced Tai Chi practitioners: Evidence for use dependent plasticity as an effect of sensory-attentional training. *Experimental Brain Research*, 188(2), 317-322. https://doi.org/10.1007/s00221-008-1409-6
- Krigbaum, C. D. (2005). The development of an audiation-based approach to Suzuki violin instruction based on the application of Edwin E. Gordon's music learning theory (Order No. 1427646). Available from ProQuest Dissertations & Theses Global. (305353594). Retrieved from http://lynx.lib.usm.edu/login?url=https://search-proquest-com
- Lakoff, G., and Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought.* New York: Basic Books.
- Leavit, T. (1997). The status of contrabass instruction at selected colleges and universities in the United States (Doctoral dissertation, The Ohio State University). Retrieved from http://search.proquest.com/pqdtglobal/results/85D5EFEA77954269PQ/1

- Landers, D. M. and Arent, S. M. (2007). Physical activity and mental health. Gershon

 Tenenbaum and Robert C. Eklund, (Eds.) *Handbook of Sport Psychology*, chapter

 21. New Jersey: John Wiley & Sons.
- Lederman, R. (2003). Neuromuscular and musculoskeletal problems in instrumental musicians. *Muscle and Nerve*, 27(5), 541–561 https://doi.org/10.1002/mus.10380
- Lehmann, A. C., & Ericsson, K. A. (1997). Research on expert performance and deliberate practice: Implications for the education of amateur musicians and music students. *Psychomusicology: A Journal of Research in Music Cognition*, *16*(1–2), 40–58. http://dx.doi.org/10.1037/h0094068
- Leman, M. (2008). *Embodied music cognition and mediation technology*. Cambridge MA: MIT Press.
- Lena, J. C., Lindemann, D. J. (2014). Who is an artist? New data for an old question.

 *Poetics, 43, 70–85. http://dx.doi.org/10.1016/j.poetic.2014.01.001
- Ludemann, W. (1999) Music as a way of knowing: tentative steps towards extending the boundaries of traditional music philosophy. *South African Journal of Philosophy*, *18*(1), 41–60. doi: 10.1080/02580136.1999.10878177
- Machado, M. P. (2005). Francois Rabbath applied: An analysis of his technique for a successful performance of Frank Proto's music (Order No. 3199076). Available from ProQuest Dissertations & Theses Global. (305000930). Retrieved from http://lynx.lib.usm.edu/login?url=http://search.proquest.com/docview/305000930
- Mark, M. L. (1982). The evolution of music education philosophy from utilitarian to aesthetic. *Journal of Research in Music Education*, 30(1),15–21. https://doi.org/10.2307/3344863

- Mark, M. L., and Gary, C. L. (2002). *Music Education: Source readings from ancient Greece to today*. New York: Routledge, Taylor and Francis.
- Mark, M. L. (2007). A history of American Music Education, Third Edition. Published in partnership with MENC: The National Association for Music Education: Frances S. Ponick, Executive Editor. New York: Rowman and Littlefield Education.
- McCarthy, M., & Goble, J. S. (2002). Music education philosophy: changing times: a half-century of debate about the philosophical basis for music education leads through functional, aesthetic, sociological, cognitive, and praxial schools of thought. (Special focus: changing perspectives in music education). *Music Educators Journal*, 89(1), 19–27. doi: https://10.2307/3399880
- McCarthy, M. (2003). The past in the present: Revitalizing history in music education.

 The British Journal of Music Education, 20(2), 121–134.

 doi: https://10.1017/S0265051703005333
- McCullough, C. P. (1996). The Alexander technique and the pedagogy of Paul Rolland.

 (Order No. 9622834). Available from ProQuest Dissertations & Theses Global.

 (304308581). Retrieved from

 http://lynx.lib.usm.edu/login?url=http://search.proquest.com/docview/30430858

 1?accountid=13946
- McNeil, L. (2000). Contradictions of school reform: educational costs of standardized testing. Retrieved from https://ebookcentral.proquest.com
- Menuhin, Y. (1971). Six lessons with Yehudi Menuhin. London: Faber Music LTD

- Menuhin, Y. (1986). The compleat violinist: Thoughts, exercises, reflections of an itinerant violinist. New York: Summit Books.
- Merleau-Ponty, M., & Lingis, A. (1968). *The Visible and the invisible, followed by working notes*. Evanston: Northwestern University Press.
- Merleau-Ponty, M. (2010). *Child psychology and pedagogy: The Sorbonne Lectures*1949–1952. (T. Welsh, Trans.). Illinoi: Northwestern University Press.

 (Original work published in 2001)
- Merleau-Ponty, M., & Landes, D. A. (2012). *Phenomenology of perception*. Abingdon, Oxon: Routledge.
- Meyer, D., & Edwards, M. (2014). The future of collegiate voice pedagogy: SWOT analysis of current practice and implications for the next generation. *Journal of Singing the Official Journal of the National Association of Teachers of Singing*, 70(4), 437–444. Retrieved from http://lynx.lib.usm.edu/login?url=https://search-proquest-com
- Miller, S. R., and Chesky, K. (2004). The multidimensional anxiety theory: An assessment of and relationships between intensity and direction of cognitive anxiety, somatic anxiety, and self-confidence over multiple performance requirements among college music majors. *Medical Problems of Performing Artists*, 19(1), 12. *Academic OneFile*, Accessed 24 Oct. 2018.
- Mones, L. (2013). Music and education in our American democracy. *Music Educators Journal*, 100(2), 74–78. Retrieved from http://www.jstor.org/stable/43288819

- Morgan, J. P. (2018). Participation in winter guard international as experienced by ten stakeholders: A phenomenological study (Order No. 10976487).

 Available from ProQuest Dissertations & Theses Global. (2156544815).

 Retrieved from

 http://lynx.lib.usm.edu/docview/2156544815?accountid=13946
- Nanny, E. (1920). Enseignment compleat de la contrabasse á 4 et 5 cordes en duex parties. Paris, France: A. Leduc.
- Neher, P. (2004). Virtuoso and mentor. *Double Bassist*, *30*, 42–43. Harrow, Middlesex: Orpheus Publications, ISNN: 1362–0835.
- Neisser, U. (1967). Cognitive psychology. Englewood Cliffs, NJ: Prentice Hall.
- Noddings, N. (1995). Philosophy of education. Boulder: Westview Press.
- Noddings, N. (2010). 'Caring in education', *The encyclopedia of informal education*. Retrieved from: http://infed.org/mPE:/caring-in-education/
- Paluska, S.A. & Schwenk, T.L. (2000). Physical activity and mental health. *Sports Medicine*, 29(3), 167–180. https://doi.org/10.2165/00007256-200029030-00003
- Pilates, J. (1945). A Pilates' primer-the millennium edition: Return to life through contrology and your health. Incline village, NV: Presentation Dynamics Inc.
- Polnauer, F. F. (1952). Biomechanics, a new approach to music education. *Journal of the Franklin Institute*, 254(4) 297–316.
 - https://doi.org/10.1016/0016-0032(52)90902-2
- Priest, S. (2003). *Merleau-Ponty*. London/New York: Routledge.
- Rabbath, F. (1964). BassBall: The sound of a bass [Vinyl record]. Paris: Philips Records.

- Rabbath, F. (1977–2016). *Nouvelle technique de la contrabasse, Volumes I–V.* Paris: A. Leduc A.L. 26.328.
- Rabbath, F. (1998). *The Double Bass: La Nouvelle Technique, a man, an instrument* [CD ROM]. Paris: Label Image Production.
- Rauscher, F. H., Shaw, G. L., and Ky, K. N. (1995). Listening to Mozart enhances spatial-temporal reasoning: Towards a neurophysiological basis. *Neuroscience Letters*, *185*(1), 44–47. https://doi.org/10.1016/0304-3940(94)11221-4
- Reimer, B. (1989). *A philosophy of music education*. Englewood Cliffs: Prentice-Hall Inc.
- Reimer, B. (2003). A philosophy of music education: Advancing the vision (Third Edition). Englewood Cliffs: Prentice-Hall Inc.
- Reimer, B. (1996). David Elliott's "new" philosophy of Music Education: Music for performers only. *Bulletin of the Council for Research in Music Education*, (128) 59-89. Retrieved from http://www.istor.org/stable/40318788
- Robert, P., Rey-Debove, J., and Rey, A. (2000). *Le petit Robert*. France: Dictionnaires Le Robert.
- Rodríguez Lozano, F. J., Sáez Yuguero, M. R., & Fenoll, A. B. (2008). Bruxism related to violin playing. *Medical Problems of Performing Artists*, 23(1), 12–15.

 Retrieved from

 http://lynx.lib.usm.edu/login?url=https://search.proquest.com/docview/1403021?

 accountid=13946
- Rolland, P. (1986). *The teaching of action in string playing*. Revised edition. New York: Boosey and Hawkes.

- Root-Bernstein, M., & Root-Bernstein, R. (March 31, 2010). Einstein on creative thinking: Music and the intuitive art of scientific imagination. Retrieved from https://www.psychologytoday.com/blog/imagine/201003/einstein-creative-thinking-music-and-the-intuitive-art-scientific-imagination
- Robson, B. E. (2004). Competition in sport, music, and dance. *Medical Problems of Performing Artists*, 19(4), 160–166. Retrieved from http://lynx.lib.usm.edu/login?url=https://search.proquest.com/docview/1403484?a ccountid=13946
- Rose, D., Jones-Bartoli, A., and Heaton, P. (2017). Measuring the impact of musical learning on cognitive, behavioral and socio-emotional wellbeing development in children. *Psychology of Music*. https://doi.org/10.1177/0305735617744887
- Rossi, M. (Sept. 9, 2013). The influence of Indian music on jazz. Blog *Sessionville*.

 Retrieved from http://sessionville.com/articles/the-influence-of-indian-music-on-jazz
- Rovai, A. P., Wighting, M. J., Baker, J. D., Grooms, L. D. (2009). Development of an instrument to measure perceived cognitive, affective, and psychomotor learning in traditional and virtual classroom higher education settings. *The Internet and Higher Education*, 12(1), 7-13. https://doi.org/10.1016/j.iheduc.2008.10.002
- Sandell, C., RPT, Frykman, M., RPT, Chesky, K., P., & Fjellman-Wiklund, A. (2009).

 Playing-related musculoskeletal disorders and stress-related health problems among percussionists. *Medical Problems of Performing Artists*, 24(4), 175-180.

 Retrieved from
 - http://lynx.lib.usm.edu/login?url=https://search.proquest.com/docview/196340672

- Schunk, D. H. (1996). Learning theories. New Jersey: Prentice Hall Inc.
- Schwadron, A. A. (1970). Philosophy in music education: Pure or applied research?

 *Bulletin of the Council for Research in Music Education, 19(Winter), 22-29.

 *Retrieved from: http://www.jstor.org/stable/40317069
- Seel, N. M. ed. (2012). *Encyclopedia of the sciences of learning*. Music Instructional Methods: Definition. chpt. 2705, p. 2405. NY. NY., USA: Springer Science -Business Media, LLC.
- Seitz, J. A. (2005). Dalcroze, the body, movement and musicality. *Psychology of Music,* 33(4), 419-435. doi: 10.1177/0305735605056155
- Shamrock, M. (1986). Orff, Shulwerk: An integrated foundation. *Music Educators Journal*, 72(6), 51-55. Published by: Sage Publications, Inc. on behalf of MENC: The National Association for Music Education.

 Stable URL: http://www.jstor.org/stable/3401278
- Silverman, M., Davis, S. A., & Elliott, D. J. (2014). Praxial music education: A critical analysis of critical commentaries. *International Journal of Music Education*, 32(1), 53–69.
 - https://doi-org.lynx.lib.usm.edu/10.1177/0255761413488709
- Simandl, F. (1881). *New method for the double bass*. New York:

 International Music Co.

- Smolen, S. J. (2000). Teaching music as a living art: Drawing the best from Waldorf and Suzuki. One string pedagogue's integration of the philosophy behind the new impulse in Waldorf music education, and the Suzuki method for stringed instruments (Order No. 3065533). Available from ProQuest Dissertations & Theses Global. (275944726). Retrieved from http://lynx.lib.usm.edu/login?url=https://search-proquest-com
- Sturm, H. (Producer), and Rabbath, F. (Writer) (2005). The art of the bow with François Rabbath [DVD]. Available from www.cdbaby.com
- Sturm, H. (Producer), and Rabbath, F. (Writer) (2011). *The art of the left hand with François Rabbath* [DVD]. Available from www.cdbaby.com
- Swanwick, K. (2003). *Music, mind, and education*. Florence, US: Routledge. Retrieved from http://www.ebrary.com
- Suzuki, S., (1983). Nurtured by love: The classic approach to talent education, Second edition (W. Suzuki, Trans.). Alfred Publishing Co., Inc.
- Taranto, A. S. (2010). Orff Schulwerk levels course instructors and their teachers:

 Determining pedagogical lineages and influences. Available from ProQuest

 Dissertations & Theses Global. (880573539). Retrieved from

 http://lynx.lib.usm.edu/login?url=http://search.proquest.com/docview/880573539
- The Prague School, (2008). Bass family tree, Chicago Bass Club. Retrieved from:

 https://web.archive.org/web/(2008)0219083512/http://members.aol.com/scrtchb

 ox/Basstree.html

- Toadvine, T. (2016). Maurice Merleau-Ponty. *The Stanford encyclopedia of philosophy* (Winter 2016 Edition), Edward N. Zalta (ed.), URL = https://plato.stanford.edu/archives/win2016/entries/merleau-ponty/
- Vaismoradi, M., Jones, J., Turunen, H, and Snelgrove, S. (2016). Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice*, 6,(5), 100–110.

 https://doi.org/10.5430/jnep.v6n5p100
- Vance, G. (1985). Suzuki bass: The second revolution. *Journal of the International Society of Bassists 12*(1), 38–43. Retrieved from

 http://library.isbworldoffice.com/polopoly_fs/1.1831098.1421882063!/fileserver/file/343494/filename/057.pdf
- Vance, G. (2005). Slava publishing reader, 1(June).
- Vance, G. (2000). *Progressive repertoire for the double bass*. N.Y., New York: C. Fischer.
- Waymire, M. D. (2011). Behavioral analysis of directors of high-performing versus low-performing high school bands (Order No. 3479034). Available from ProQuest Dissertations & Theses Global. (904156794). Retrieved from http://lynx.lib.usm.edu/login?url=https://search-proquest com.lynx.lib.usm.edu/docview/904156794?accountid=13946
- Wesner R. B., Noyes Jr. R., and Davis T. L. (1989). The occurrences of performance anxiety among musicians. *Journal of Affective Disorders*, *18*, 177–186. https://doi.org/10.1016/0165-0327(90)90034-6

- What is Philosophy? (2018, May 12). Retrieved from https://philosophy.fsu.edu/undergraduate-study/why-philosophy/What-is-
 -Philosophy
- Wilson, R. A., and Foglia, L.(2017). Embodied cognition, *The Stanford encyclopedia of philosophy* (Spring 2017), Edward N. Zalta (ed.).

https://plato.stanford.edu/archives/spr2017/entries/embodied-cognition/

Youssef, M. U., Attia, S. E. A., and Kamel, M. I. (1998). Children experiencing violence II: Prevalence and determinants of corporal punishment in schools. *Child Abuse and Neglect*, 22(10), 975–985. https://doi.org/10.1016/S0145-2134(98)00084-

Zeller, J. (2009). Teaching through time: Tracing ballet's pedagogical lineage in the work of Maggie Black. *Dance Chronicle*, 32,(1) 57–81.

doi: https://10.1080/01472520802690283

2