Teaching Strategies of Successful College Trombone Professors for Undergraduate Students

by

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Dedication

For many years of unswerving support, this research is dedicated to my parents,

Harvey and Barbara Buckmaster.

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ABSTRACT

This study identified teaching strategies of successful trombone professors for undergraduate trombone students. Participants were three professors at accredited colleges in the United States who had received international awards in the field of trombone pedagogy. A comprehensive interview instrument was administered to each participant in a multiple case studies research design. From the gathered data, a classical content analysis revealed 79 emergent themes from 375 coded passages, with 45 of the emergent themes being commonalities among the three participants. In addition to specific teaching strategies, three meta-themes emerged from an examination of these commonalities: Product Over Process, Individualized Teaching Approaches, and Raising Student Awareness of Issues. A teaching model of the three professors is presented based upon these meta-themes, and findings and implications of the research are discussed.

Chapter 1

Introduction

The trombone is a versatile musical instrument that is used in a variety of settings and ensembles around the globe. Its modern history can be traced back at least 500 years (Herbert, 2004), and there is contention that there are many biblical references to the trombone that may indicate the instrument has a more ancient history as well (Guion, 1988). It is well established in the symphony orchestra, the jazz band, the military concert band, and even in rock and pop music (Bailey, Miles, Siebert, Stanley, & Stein, 1992). Indeed, one might go so far as to say the trombone is unique in that its perseverance and adaptability in the music community is virtually unequalled. In instrumental music, only the guitar can rival the trombone with regard to versatility and longevity of use (Guion, 1988).

With the trombone's rich history and widespread current use, it is no surprise that the education and pedagogy of the instrument is equally robust. Teachers at colleges, universities, and conservatories across the world are training performers of the trombone to enter the professional music community. In public schools across the United States, the trombone is featured in a variety of ensembles, and many students take private lessons. Amateurs delight in playing the instrument in local brass bands, church ensembles, or community orchestras and concert bands. It would be rare indeed to find a school in the United States where music is taught that the trombone did not appear in some context.

In learning the trombone, as with any musical instrument, every musician addresses pedagogical issues (such as intonation, articulation, or tone production). It is through overcoming these difficulties that performers of the trombone improve and master their craft, and gain greater proficiency on the instrument. But how do master performers and teachers approach these pedagogical concepts?

The line between performer and educator in applied music instruction is often blurred (Mark, 1998). Are such individuals primarily musicians who also teach private lessons, or primarily educators who also perform fairly regularly? Uszler (1992) describes the private music teacher dichotomously as either a performer-type or educator-type. The former focuses on individualized skills and techniques, and encourages musicality through performing for others. The latter concentrates on a broader scope of learning, with integrated approaches to lessons including theory, history, and stylistic techniques. There can be little doubt that the typical trombone teacher is firmly rooted in the performer-type model (Hartman, 1988; Lane, 1999; Williams, 1985). This is often a sensible arrangement, especially in the university setting where students receive instruction in such areas as music theory and history outside of private lessons. Therefore, the typical hour per week of trombone instruction can concentrate on the reasonable focus: the technique of playing the trombone.

Trombone pedagogy, like many esoteric fields of study in music performance, utilizes mostly testimonials and position papers/books to communicate ideas and information. An authority on trombone performance in this ideology is an outstanding trombone performer, and similarly an expert in trombone education is an outstanding trombone educator. Often the two are considered one and the same—the differences

become unclear or unimportant. Wick (1971), who is the current president of the International Trombone Association (ITA), believes that "[trombone] teachers must be really fine players, and be able to demonstrate practically what they are teaching. To be able to *describe*, with however fine a mastery of words…is no substitute for *doing*" (p. 104, emphasis in original). This performance-oriented maxim is characteristic of much of the field of trombone pedagogy, and often the music performance community as a whole.

Establishing credentials in trombone education is often as simple as releasing a solo recording, or obtaining a professorship at a well-known university or conservatory. Similar to other fields, a recognized name will distinguish one from the larger trombone teaching community. Within this varied pool trombone pedagogy allows its performers and educators to teach private lessons as they will, and let the results (the students' success) be the justification for the means.

Statement of the Problem

In order for a student to be successful, she or he must become proficient at performing on the trombone. Most often, a student will study with a teacher to gain the necessary knowledge and expertise (Hartman, 1988). Therefore, successful teachers of the trombone, as of other instruments, have had to teach multiple concepts of technical and musical skills to their students in order to address the many idiomatic concepts to their students. But what exactly are these concepts, and how do successful teachers of the trombone convey them to their students?

Granted that each person is an individual and therefore susceptible to individual ideas and methods, one can safely assume that successful teachers of the trombone vary

their strategies accordingly. Further, assuming that successful trombone performers (who have been taught by some of these same successful teachers) have certain inherent qualities of trombone-oriented musicianship in common, one can also reasonably surmise that these same teachers have certain ideologies and even teaching strategies in common as well. This possible shared educational philosophy may underlie a greater methodology for teaching the trombone, and help one better understand how successful professors approach teaching this complicated musical instrument.

To identify these teaching strategies, it is necessary to go to the source—the trombone teachers themselves. As the practitioners of trombone education, these persons are the true gatekeepers to the most effective teaching strategies. Defining and identifying the most successful among these teachers will focus the study to glean the most pertinent and rich data with which to work. Csikszentmihalyi (1996) asserts that teachers who recognize the successes of their students can have a significant impact on their future professional lives: "[College teachers] can ignite a person's dormant interest in a subject and provide the right intellectual challenge that leads to a lifelong vocation" (p. 185). More to the point, the teachers who do influence the people who are so creative that they leave an imprint on society and culture (Csikszentmihalyi defines such persons as creative with a big "C") enjoy this success because of their teaching strategies. According to Csikszentmihalyi, what made these teachers influential to their students was that they "noticed the student, believed in his or her abilities, and *cared*" (p. 174, italics in original). In this way the success of teachers of the trombone and the students they teach is symbiotically connected.

Conceptual Framework

The conceptual framework for this study is based upon the reflective practice theories of Dewey (1899, 1933). This philosophy asserts that we as humans learn best by the art of doing and experiencing (Dewey, 1934). Reflection upon these experiences is the essence of teaching and learning. This ideology is sometimes referred to as experiential learning or education (Simpson, Jackson, & Aycock, 2005). Specifically regarding music education within this framework, Woodford (1994) asserts that "it is through this process [musical reflective thinking] that musical growth is accomplished" (p. 487).

This framework of reflective practice in education is suitable for this study because teaching through the art of doing is inherent to trombone performance and education. Strategies of successful trombone teachers are often founded on the concept of modeling. Often the teacher will play (the model), and then ask the student to imitate him or her. Feedback is provided, reflection is encouraged, and the learning process continues.

Supporting this framework are the traditions of apprenticeship and oral tradition, which have been used as educational techniques in music for centuries (Colprit, 2000; Duke, Flowers, & Wolfe, 1997; Kennell, 2002). In this model, the teacher is the master, who provides expertise and knowledge to the student (Gardner, 1991). Apprenticeship and oral tradition, along with reflective practice and experiential learning, are still prevalent in applied music teachers' methods in the United States today (Hseih, 2003; Kang, 2003). These concepts are at the core of applied instruction in the trombone educational community as well.

Rationale of the Study

It is reasonable to surmise that trombone teachers could have a share in the responsibility of their students' level of success in trombone performance. As such, these teachers have a duty to strive continually to be the best educators possible. However, as explained more in detail in Chapter 2, trombone pedagogical research in the traditional academic sense is somewhat sparse (see Lane, 1999). A study is needed to combine the body of literature that exists with rigorous research, to further the understanding of effective teaching of the trombone, and to gain a better understanding of how successful professors most effectively teach trombone-related concepts.

Significance of the Study

This lack of a comprehensive model to which the profession of trombone education may look is potentially detrimental to education of the instrument. This study may help trombone teachers who enter the field as a basis for their own teaching techniques and strategies. This model could be all the more valuable considering the distinguished experience of the research participants. Moreover, if certain common teaching strategies are found to be present in the participants' educational techniques, it would be important information that could assist all teachers and students of the instrument. Identification of these teaching strategies might only be the first step to further implications of the study.

Purpose of the Study

This study sought to identify effective educational strategies conceived by three recognized college professors in teaching the trombone to undergraduate students.

Themes of commonalities between these three successful trombone professors were found, and the relation between these themes was examined. The interaction between each difference in approach also was explored. Finally, inferences from such similarities were drawn and integrated into an underlying philosophical framework. A teaching model was extrapolated from this framework, and applied to the trombone education community at large, with recommendations for practical application and future research.

Qualitative Research Question

The research question was: What teaching strategies do successful college professors utilize in teaching undergraduate trombone students? A hypothesis was not asserted because the interest of the study was in the teaching strategies themselves; and these were dependent upon the teachers who utilized them. A hypothesis of what these individuals think was futile, and possibly harmful to the nature of the interview process. Any inferences into what was or was not important for the research was drawn from the literature, and then from the analysis of the data gathered; not from a hypothesis-based theory. This approach was appropriate for the study's inductive design (Patton, 2002).

Definition of Terms

With respect to the research question, "teaching strategies" is used as a blanket term for educational philosophy, methods, curriculum, method books and materials used, and technical issues of the instrument, plus any other aspects of trombone education the teacher delineates. Hultberg (2005) defines the phrase as any educational method by which musical development of the student is supported. These teaching strategies may be complex, and may in fact be not so much strategic as simple common sense, or intuitive

concepts passed along to the student. This definition of teaching strategies is characterized more fully by the "successful" professors themselves (i.e., the participants).

In Chapter 2, "literature" is defined as the body of research in the field. This is in contrast to the more familiar definition of the term in the trombone performance community as soloistic music for performance. Furthermore, the term "solo" is defined as an emergent theme from the analysis that was cited by only one participant, not as a musical piece performed by oneself. "Undergraduate trombone students" are defined as those individuals studying applied trombone who are current students of the same institution at which the professor teaches, and who have not yet received their bachelor's degree or the equivalent.

For the purposes of this study, a "successful" trombone teacher is defined as one who has achieved both a tenured full professorship at an institution accredited by the National Association of Schools of Music (NASM; National Association of Schools of Music, 2006) and who has been awarded either the Neill Humfeld Award for Excellence in Teaching (International Trombone Association [ITA], 2006a), or the ITA Award recognizing a highly influential individual in the trombone community (ITA, 2006b). This is an attempt to legitimize the "success" of the teacher for research purposes at both the national (tenure at a NASM-accredited institution) and international (Neill Humfeld or ITA Award) levels (see Tables 1 and 2). The "success" of the students of these teachers is not integrated in this definition and is not a focus of the study.

Table 1

Neill Humfeld Award Recipients (Possible Interviewees): Sampling Frame

Year	Name	Occupation
1992	John Drew*	Professor, Florida State University
1993	Albert Lube	Professor, University of Houston
1994	Leon Brown	Professor, University of North Texas
1995	Per Brevig	Professor, Juilliard and Manhattan Schools of Music
1996	Peter Gane	Professor, Guildhall School of Music
1997	John Swallow	Professor, New England Conservatory, Yale University, Manhattan School of Music
1998	M. Dee Stewart	Professor, Indiana University
1999	Donald Knaub	Professor, University of Texas at Austin
2000	Ingemar Roos	Frölunda, Sweden
2001	John Hill	Former Professor, University of Iowa
2002	Curtis Olson*	Professor, Michigan State University
2003	Viktor Sumerkin	Professor, St. Petersburg Conservatory
2004	Buddy Baker	Professor, University of Northern Colorado in Greeley
2005	Heinz Fadle	Professor, Hochschule für Musik Detmold
2006	Dennis Wick	Professor, Royal Academy of Music, Guildhall School

*denotes participant in this research study

(from International Trombone Association, 2006a)

Table 2

ITA Award Recipients (Possible Interviewees): Sampling Frame

Year	Name	Occupation
1972	Henry Romersa	Founder, International Trombone Workshop
1973	Lewis Van Haney	Professor, Indiana University
1974	Buddy Baker	Professor, University of Northern Colorado
1975	Robert King	Owner and Founder, Robert King Music Company
1976	Gordon Pulis	Former Principal Trombone, New York Philharmonic
1977	John Coffey	Former Bass Trombone, Boston Symphony Orchestra
1978	Stuart Dempster	Professor, University of Washington
1979	Thomas Beversdorf	Professor, Indiana University
1980	Thomas Everett	Professor, Harvard University
1981	Allen Ostrander	Professor, Ithaca College
1982	George Roberts	Los Angeles based freelance trombonist
1983	Leon Brown	Professor, University of North Texas
1984	Neill Humfeld	Professor, East Texas State University
1985	Urbie Green	Jazz Artist
1986	Edward Kleinhammer	Former Bass Trombone, Chicago Symphony Orchestra
1987	William Cramer	Professor, Florida State University
1988	J.J. Johnson	Jazz Artist
1989	Denis Wick	Professor, Royal Academy of Music, Guildhall School

Table 2 (continued)

Year	Name	Occupation
1990	Frank Crisafulli	Professor, Northwestern University
1991	Christian Lindberg	Solo Trombonist, Stockholm, Sweden
1992	Juliusz Pietrachowicz	Former Principal Trombonist, Warsaw Philharmonic
1993	Larry Wiehe	Navy Band and US Air Force Band
1994	Robert Isele	Former Trombonist, National Symphony Orchestra
1995	Vern Kagarice	Professor, University of North Texas
1996	Carsten Svanberg	Professor, Musikhochschule, Graz, Austria
1997	Irvin Wagner	Professor, University of Oklahoma
1998	Carl Fontana	Jazz Artist
1999	John Marcellus*	Professor, Eastman School of Music
2000	Heinz Fadle	Professor, Detmold Hochschule for Musik, Germany
2001	Phil Wilson	Professor, Berklee College of Music
2002	Joe Alessi	Principal Trombone, New York Philharonic
2003	Ben van Dijk	Professor, Royal Northern College of Music, England
2004	Jay Friedman	Principal Trombone, Chicago Symphony Orchestra
2005	Ronald Barron	Principal Trombone, Boston Symphony Orchestra
2006	Don Lusher	Jazz Artist

*denotes participant in this research study

(from International trombone Association, 2006b)

Delimitations

A delimitation to the study represented the criteria for selection of the participants, outlined in Chapter 3. These exclusive criteria were awards from international (ITA) and national (NASM) organizations, which were accepted as benchmarks in the profession and therefore reliable indicators of successful teaching practices in the trombone pedagogical community. Moreover, it was assumed that the data collected from these distinguished participants would be highly valuable in serving the purpose of the study.

Limitations

The research may have been limited by several threats to internal and external validity. One concern was that the sample of participants was fairly small. These case studies were carefully selected according to the defined criteria; however, their thoughts may not have been indicative of commonly accepted practices. These teachers may use methods and strategies outside of the mainstream of trombone educational pedagogy; in fact, the possibility exists that these unusual educational strategies are what makes them most effective.

The students who study with these renowned teachers may not have been typical. There was a risk that the success of the participants' students was due at least in part to the talent level and motivation of the students themselves, and not due to the participants' teaching strategies. An attempt to control this limitation was made by concentrating on the success of the teacher within a specific definition of the term; indeed, the students of the participants were not the focus of this study at all. Rather, the teaching strategies of

these successful participants were the focus—the "success" of the students was disregarded for the purposes of this research.

The success of the participants also may have more to do with their own teaching personas than with the educational techniques they utilize. A comprehensive study of university students (n = 511) by Hamann, Baker, McAllister, and Bauer (2000) revealed that students' interest levels in applied music instruction had more to do with teacher delivery skills than with actual lesson content and the quality therein: "Even lessons with good content but poor teacher delivery may not be found to be as interesting nor liked as well as lessons with good teacher delivery but poor content" (p. 111). Thus, perhaps at least part of the success of the participants in the current study may have been due to simple charisma. However, it should be noted that the ability to generate interest in the subject matter at hand is likely an integral part of successful teaching anyway (Madsen, Standley, Byo, & Cassidy, 1992). The participants in this study could have been such teachers.

A further limitation was the interview instrument utilized in the study. The instrument may not have adequately covered all topics of interest for teaching the trombone. It was hoped that a comprehensive literature review and a pilot study accounted for this; nonetheless, the threat still existed. The interview instrument was loosely modeled on an existing instrument by Clark (1996). A pilot test was administered to a local college trombone teacher to determine any oversights, and to revise or reword any awkward or confusing questions. This was perhaps the most important aspect of the study, and was treated as such, to assure the highest content-related validity possible for data collection.

Additional threats to validity included the definition of "successful" teachers for the study. The choice of successful teachers was as complete as one can make it. How can one truly define a successful teacher? There are so many intangibles that cannot be tested, and so many qualities of successful teachers that are not easy to define or pinpoint. Yet, somehow there is an invariable comprehension when one has had a good teacher, or an innate understanding of a colleague's educational excellence, all despite concrete proofs. The professors listed in Tables 1 and 2 are not political enterprisers, nor are they merely "improvising" in the rigorous world of applied music teaching. Those in the field know them to be knowledgeable, industrious, and to have an uncompromising desire for excellence in teaching and performance of the trombone. To be awarded either the Neill Humfeld Award for Excellence in Teaching or the ITA Award for a highly influential individual in the trombone community, one must first be nominated, then short-listed by the board of directors of the ITA, and then receive more than 50% of the over 4,500 members' votes (International Trombone Association, 2006a; 2006b). The definition of "successful" utilizing criteria such as this was merely an attempt to legitimize further their teaching in an academic sense for the purposes of this study.

The threat of researcher bias was present in this qualitative study. The researcher was cognizant of the importance of avoiding bias, and the need to increase the trustworthiness of the study (Patton, 2002). Through rigorous methodology and attention to detail, every attempt was made to avoid bias in collection, analysis, and interpretation of the data, in an effort to find the true voice of the participants.

Onwuegbuzie and Leech (in press-a) state that threats to internal and external validity in qualitative research are an inherent issue in this research paradigm, and

contend that "the onus is on qualitative researchers to be accountable fully for their data collecting, analysis, and interpretive methodologies" (p. 44). Moreover, validity is always an issue within qualitative research, partially because of the threat of research bias (Anfara, Brown, & Mangione, 2002). Therefore, it was hoped that because the current research was conducted through as rigorous a methodology as possible, the results and conclusions are as valid as is possible in qualitative research.

Organization of Remaining Chapters

Chapter 2 focuses on the existing literature, with an emphasis on identifying topics of interest to the trombone pedagogical community. These topics of interest are organized into a hierarchical categorization for inclusion in the interview instrument. Chapter 3 delineates the participants, methodology, instrumentation, data collection, procedures, and methods of analysis for the research. Legitimation issues also are discussed. In Chapter 4, the analysis is presented, described, and categorized with appropriate tables and figures. Any relationship among emergent themes also is identified and examined in contrast to the literature. Chapter 5 summarizes the significant results, interprets the findings, and identifies meta-themes among the emergent themes. An underlying educational philosophy is proposed as a teaching model. The limitations of the study are revisited and examined in the context of the findings, implications of the results are postulated, and recommendations for future research are presented. A conclusion brings the chapter to a close.

Chapter 2

Literature Review

The literature in trombone pedagogy is broad and contains a wealth of material on which to expound. Many books, articles, and other publications have been written regarding the trombone and the teaching of the instrument. Although there is possible cause for concern regarding the academic nature of some of this material, it is widely accepted in the trombone world as significant literature. Certainly, statistical analysis is scarce, and formal organization is not always present. However, the information is sound and valuable overall, and can be used as a firm foundation for understanding issues of importance in the teaching strategies of trombone pedagogy.

This chapter examines the nature of the literature in trombone pedagogy and attempts to classify and organize it. This is important because there is currently little structure, if any, within the literature to differentiate one study from another; indeed, the character and quality of accepted trombone-related research itself is not always apparent. To address this need, this chapter presents a classification of trombone-related research, and delineates specific pedagogical issues within that classification. These issues are then examined and assessed within the context of the existing literature for the purposes of data collection. A summary is presented at the conclusion of the chapter.

Classification of Trombone-Related Research

Trombone-related research can be divided into two classifications: *Position Papers/Books* and *Academic Research* (see Table 3). The large majority of literature falls

under the former classification, as is fairly common in the music world and especially true of applied music in general (Heller & O'Connor, 2001). Most musicians are generally interested in how a certain accomplished performer developed his or her wonderful sound, intonation, speedy articulation, and so forth, rather than read an academic paper filled with statistics on those same aspects. Music is by nature more abstract than many other social sciences, and practicing musicians tend to avoid reading academic research in music (Phelps, Sadoff, Warburton, & Ferrara, 2005). Notable exceptions to this are dissertations and theses, which constitute the bulk of the *Academic Research* classification in trombone-related literature. Both classifications are important to trombone pedagogy, and so an examination of both was appropriate to determine topics of interest for the current research. A definition of each trombone-related research classification is illustrated in Table 3.

Table 3

*Definitions of Trombone-Related Research Classifications**

Position Papers/Book	Academic Research
Strong argument for a particular point of view or dogma	Structured and rigorous academic study with careful and systematic observations
Does not admit to any essential deficiencies	Research provides support for or against a particular theory or concept
Research is tied to a specific conclusion; bias is integral to the research	Research is tied to bias-minimized results and conclusions
References and/or bibliography may or may not be presented	References and/or bibliography presented

*adapted from Heller & O'Connor, 2001

Position Paper/Books Classification

Position Papers/Books, although not research in the more restrictive definition of the term, are excellent resources to identify critical areas of interest in trombone pedagogy. This classification is typified by studies that have a strong argument for a particular point of view, such as advocating the Remington warm-ups as the best for establishing performance fundamentals for young trombonists. This approach also characteristically does not admit to any particular deficiencies, is often tied to a pre-conceived and specific conclusion, and uses researcher bias as an integral component. References are often not present in such *Position Papers/Books* (Heller & O'Connor, 2001).

In trombone pedagogy, like much of the field of instrumental applied study, teaching strategies are often more of an inherited art of apprenticeship passed down from generation to generation than an actual technique of teaching (Robinson, 2001). As stated before, teachers are individuals, and individuals often tend to act in the manner that seems best to them. Therefore, numerous books in the area of trombone pedagogy have been written by experienced trombone teachers and/or performers, describing their particular educational strategies for teaching the trombone (see Baker, 1992; Begel, 2002; Bolter, 1998; Farkas, 1989; Fink, 1977; Frederickson, 1996; Hofacre, 2002; Kleinhammer, 1963; Knaub, 1998; Roznoy, 1978; Wick, 1971). These resources are valuable as educational resources, and are largely viewed as valid and trustworthy by the trombone pedagogical community.

Consider the following quote from Jacobs, the noted brass educator: "…a very young player should not be focused on learning to play the instrument. Rather, he should learn how an instrument should sound. In the act of learning the sound, he is learning the instrument" (Frederickson, 1996, p. 95). This quote is a characteristic example of the rhetoric one encounters in nearly every such book, article, or paper in the classification of *Position Papers/Books*—a renowned brass player and/or teacher asserting his or her view on areas of brass performance. Some of the papers and books in this category are more widely accepted than others, and some are in practice in larger circles than others. But there is an underlying system of importance in place: a focus on effective musical performance methods and techniques. Within this genuine and valid focus lies the significance of the *Position Papers/Books* classification.

Academic Research Classification

The classification of *Academic Research* is perhaps more familiar to the mainstream world of research in academia. Included in this classification is any research that is approached in the traditional definition of research: collecting, analyzing, and interpreting data via widely accepted methods and designs for some specific purpose (McMillan & Schumacher, 2000). This classification is typified by structured and rigorous academic study with careful and systematic observations that provide support for or against a particular theory or concept. Researcher bias is minimized as much as possible, and references are usually present (Heller & O'Connor, 2001). Resources within this classification are not as abundant as in *Position Papers/Books* in trombone-related literature, and are sometimes neglected or even viewed with disdain by the trombone pedagogical community. However, there is valuable information to be found that is both pertinent and significant to educational issues in the trombone world.

A study particularly pertinent to the current study in the *Academic Research* classification was conducted by Clark (1996). Clark's research, entitled "Teaching concepts and techniques utilized by three American trombone professors," dealt with much the same concepts as this study. Indeed, the methodology of that study is very similar, although the current study was not intended to be a secondary analysis or a replicated study.

Clark (1996) developed an interview instrument, and administered interviews with three trombone professors in the United States. These three participants represented a convenience sample, although each would likely be considered an experienced and knowledgeable teacher of the trombone. Indeed, all three participants in that study would

meet the requirements of a "successful" teacher in the current study's definition of the term. Clark provided full transcripts of each interview, and the instrument itself is thorough and precise (107 questions, before follow-up queries). This provided a large amount of data pertinent to the current study.

Clark (1996) also identified commonalities among his interview participants, and summarized these similarities as important concepts in trombone education. For example, Clark found commonalities in the importance of teaching ensemble skills (p. 95), legato tonguing (p. 97), the importance of product ("music") rather than process (p. 100), a preference for jaw vibrato rather than slide vibrato for orchestral and soloistic performance (p. 102), a need for students' mastery of the fundamentals (pp. 106-107), and matching of sound concepts to an ideal sound (pp. 107-108). Such similarities between these teachers were viewed as topics of interest for the current study.

Clark's interview with Buddy Baker gleaned this chunk of data, which was corroborated by the other two interview participants and illustrated a possible commonality in the importance of stressing fundamentals in the teaching strategies among the participants in the study: "…Baker penetrated to a deeper level of insight and revealed these players' common denominator and the key to their greatness. Baker recalls, 'Most of the trombone players were really good fundamental players'" (Clark, 1996, pp. 8-9). This illustrates the valuable nature of the actual content of the interviews.

There are some concerns regarding Clark's study as academic research in the accepted definition of the term. There are only 17 listed references, which is substantially less than most studies in this classification (Beile, Boote, & Killingworth, 2004; Haycock, 2004), and may point to concerns regarding the literature-based

development of the interview instrument. However, upon examining the literature for the current study, the instrument seems well-constructed and fairly comprehensive for the field of trombone pedagogy. This may be another example of oral tradition being a guide for identification of pedagogical issues (Kennell, 1992), and could be a further indicator that concerns within trombone pedagogy may be largely self-evident.

An additional concern with Clark's study is that no qualitative analysis of the data is presented. Because there is no evidence of data analysis, the validity and reliability of the "commonalities" between interview participants that Clark identifies are questionable in the traditional academic sense. Indeed, because there is little or no effort to minimize bias and the data analysis is neither rigorous nor structured, the study more closely resembles that of the *Position Papers/Books* rather than the *Academic Research* classification of trombone research.

An obvious question is why one would include such a seemingly non-academic study (in the traditional approach to research) in the *Academic Research* classification of trombone-related literature. Because the interviews are presented in their entirety, and a secondary analysis is therefore possible from the raw data, Clark's (1996) study has the potential to meet the more rigorous requirements of the *Academic Research* classification. New results could be found from this analysis, and corroborated with other findings. This makes the paper valuable as an academic resource.

A study by Roberts (2002) is another excellent example of the *Academic Research* classification. The purpose of Roberts' study was to determine the current state of practice strategy among trombonists in the United States. The survey instrument addressed topics pertaining to this specific interest, but are by their very nature pertinent

to pedagogical issues as well. The sample of professional trombonists (n = 43) was carefully selected to represent not the entire population of trombonists, but a panel of nationally prominent performers and educators. Roberts emphasized the tacit assumption of the study: "that patterns of organization in the personal practice habits of those pre-eminent in the field…should be taken seriously by the field at large, and particularly so by those who themselves aspire to high achievement" (2002, p. 51). At the very least, the sample is distinguished enough in the field to lend the survey results a reasonable measure of validity in trombone pedagogy (see p. 52).

Roberts delimits the study by acknowledging the relatively small number of participants who are female (n = 6, 14% of the sample) and those whose major stylistic emphasis is jazz (n = 3, 7% of the sample). The typical participant of the study was male, studio trained, classically oriented, and performing regularly in an orchestra. Roberts admits the bias inherent in the survey, but argues that this bias is merely representative of the trombone profession: "Anyone who has been around the profession…will concede that the respondent profile for this survey simply mirrors the reality we all face every day. In truth, we do need more women brass players…[and] players who are comfortable across the broad spectrum of musical styles, including jazz" (p. 46). Although there is no specific data with which to verify this assertion, anecdotal evidence seems to support the claim (Lowry, 2004; Meinz & Manning, 2001).

Issues in Trombone Education

Roberts' topic list is fairly comprehensive, and addresses many major pedagogical areas. This list is combined with Clark's (1996) commonalities and a review of trombone-related literature in both the *Academic Research* and *Position Papers/Books*

classifications of research to delineate specific pedagogical areas in trombone education (see Table 4). Although somewhat broad in nature, this list accurately represents the most critical components of trombone education. The categorization outlined here will be utilized in the remainder of this chapter for a comprehensive review of the literature.

Issues within *Philosophy* include any that relate directly to performance education, but do not occur while actually playing the trombone. For instance, the student who wishes to learn the tenor clef might utilize the Blazevich (1977) method book, most probably because the student's teacher has recommended it. Why choose this particular method book rather than the Fink (1968) clef studies method? Clearly, a philosophical decision has been made concerning the education of clef study that will affect the student's actual performance skill. Furthermore, this decision was made before any actual trombone performance occurred. In this way issues within the *Philosophy* of trombone teaching strategies are an integral part of trombone pedagogy.

Technique contains all areas of trombone performance that are specifically related to the trombone. The most obvious example in this area is slide technique, as no other wind instrument utilizes a slide for its main pitch alterations, but other more general issues also may be included. For instance, although the trumpet student also needs to address articulation on that instrument, the valves on the trumpet can act as articulators in a legato passage, while the trombone student must learn to tongue such slurred styles (termed "legato articulation" or "loo tongue"). Issues that are idiomatic to the trombone fall under *Technique*.

Conversely, all areas of trombone performance that are included in trombone education but are not specifically related to the instrument fall under *Musicianship*. An

example is the development of sightreading, an expertise that is crucial for any aspiring instrumentalist. Yet, traditionally, the primary learning arena for such a skill is the applied music lesson; thus, the trombone educator must address the issue. The *Musicianship* category is likely the broadest of the three pedagogical areas, and might be less emphasized overall in the private lesson due to the assumption that the student also is learning these more expansive concepts in ensembles and daily practice.

Table 4

Pedagogical Issues in Trombone Education

Issue	Description
Philosophy	Includes educational issues such as practice philosophy, etude/method books utilized, stylistic learning focus, equipment choices, and warm-up and daily routine philosophy.
Technique	Idiomatic performance issues such as slide technique, intonation, articulation, tone production and quality, range, endurance, flexibility, clef study, and breathing.
Musicianship	More general musical performance issues such as sightreading, musicality, ensemble playing, stylistic versatility, dynamic range, and rhythmic feel.

Philosophy Issues

The fundamentals of educational practice and technique in trombone pedagogy are rooted in *Philosophy*. Within this grouping lie the issues of practice philosophy, etude/method books utilized, stylistic learning focus, equipment choices, and warm-up and daily routine philosophy. The values and beliefs of trombone teachers on these issues directly influence their teaching strategies, and therefore hold an integral role in trombone pedagogy. The comprehensive study by Roberts (2002) was combined with other literature in both the *Position Papers/Books* and *Academic Research* classifications of trombone pedagogical research to determine whether a consensus in current practice can be tentatively drawn, or an ideological schism identified.

Practice philosophy is prevalent in many trombone resources. As noted by Kleinhammer (1963), "Daily practice and improvement are a must" (p. 101). This assertion adequately characterizes the attitude of much of the music performance community. Roberts (2002) found a preference (37%) toward two practice sessions per day for approximately one hour long each (total sample average of 1.8 hours per day) (p. 49). While this quantification gives a comforting solidarity to practice time, some sources recommend customizing daily practice time to the individual student's needs (Begel, 2002; Hofacre, 2002). Systematic and efficient practice also are noted as important (Baker, 1992). Taking at least one day off from practice seems a common idea as well, with Roberts' finding of those in the sample who found the procedure acceptable (31%) preferring a six-day pattern (p. 49). This is echoed in the literature (Baker, 1992; Fink, 1977).

Mental practice was cited by 74% of the sample as important, with singing away from the horn, performance visualization, and memorization as the most recommended strategies (Roberts, 2002, p. 50). This concentration on practice without the instrument is valuable for practical reasons such as time conservation and convenience, as well as for more abstract purposes such as isolating an aspect of performance or clearing the mind for optimal efficiency. In a study conducted by Ross (1985), college trombonists who practiced both mentally and physically achieved the same measure of success as those who practiced only physically. This finding suggests that mental practice could be at least as valuable as physical practice. In the literature, Jacobs (Frederickson, 1996), Begel (2002), Fink (1977), and Wick (1971) all recommend mental practice as well. A possible weakness of this approach might be less development of the physical aspects of trombone performance, such as range or endurance.

Materials one should practice were cited by the sample in the following ranking of level of difficulty: Moderate, 41%; High, 31%; Moderately low, 16%; Extremely high, 15%; Extremely low, 14% (Roberts, 2002, p. 50). This hierarchy of practice difficulty suggests a practice emphasis on maintenance with room for improvement. This is corroborated by outside sources as well (Baker, 1992; Hofacre, 2002; Roznoy, 1978). Goal-setting in practice was named by 85% of the sample as a consistent strategy, with 39% considering it extremely helpful (Roberts, 2002, p. 49). Baker (1992) encourages constant use of this method, and Begel (2002) also emphasizes the importance of setting daily goals. However, one would do well to use caution to make such goals reasonable and to be flexible enough to fit immediate individual needs (Fallenberg, 1997). For instance, to build range it might seem wise to set a daily goal of playing in the extreme

upper register for 30 minutes. Yet, this may actually cause damage to the embouchure, and have an adverse affect on the desired goal (Mack, 1991). For this reason, Hofacre (2002) recommends all students have their goals approved by the teacher.

To examine etude/method books utilized in the trombone private lesson, one can turn to Edwards (2002), who surveyed 161 college-level trombone teachers in the United States on the subject. Using a weighted scale, he assigned a point average to each method book identified by the participants on a range of zero to five, depending on frequency of use in private lessons. The etude book *Melodious Etudes for Trombone, volume 1* (Bordogni, 1928) was the clear choice of most trombone teachers, receiving a near-perfect 4.89 average. Book 2 of the same series ranked second with an average of 3.52. These etude books are highly acclaimed for their musical vocalise transcriptions, which greatly assist concentration on many pedagogical issues in the other two pedagogical issues in Table 4, and will be examined more fully later in Chapter 2. The Kopprasch *60 Selected Studies* book (1905), which is also heavily utilized by hornists and tubists, ranked third with a 3.42 average. The versatile *Arban's Famous Method* book (1936), which is mostly technical in nature and is referred to as "the bible" by some renowned educators (Pinson, 2005), ranked fourth with a 3.09 average. A surprise at the fifth ranking and a testament to the collegiate focus on learning to read different clefs is the Fink *Introduction to Tenor Clef* (1968), which averaged 3.07 points. All of these selected five etude/method books are recommended by other sources (Baker, 1992; Begel, 2002; Hofacre, 2002; Knaub, 1998). This is just an excerpt of the survey—Edwards reports 45 books for tenor trombone and 26 for bass trombone, with write-in responses also given consideration. Also of interest is the amount of materials which also

appear in other brass teachers' studios: the Clarke studies (1935) , the Schlossberg etudes (1947), or the earlier cited Kopprasch method (1905). This is likely an indicator of the shared pedagogical issues in the brass instrument family that could be addressed through common study materials, such as embouchure development, breath, or articulation issues.

Warm-ups and daily routine are a part of any musician's practice schedule, but the subject has received special attention in trombone pedagogy. In fact, this is one area where trombone pedagogy has definite differences in schools of thought. Roberts (2002) found that 39% of the sample were influenced in warm-up teaching models by Remington, 16% by Vernon or Jacobs, 12% by Marstellar, and 11% by Baker (p. 47). This is not to say these warm-up models are completely unrelated, but there are slight differences between each that separate them.

The Remington (1980) warm-ups and routine deserve special attention within this discussion of warm-up and daily routine philosophy as one of the main influences in trombone pedagogy (Hunsberger, 1992). The finding that 39% of a sample of trombone teachers and performers ($n = 43$) were influenced by this warm-up is noteworthy (Roberts, 2002). At least part of the reason for this is that Remington was a prolific trombone educator who taught for 49 years, and used his renowned warm-up not only in the context of preparing the mind and muscles to play but also as an integral part of teaching all music-related concepts (Clark, 1996; Colegrove, 1999). This is an excellent example of how *Philosophy* could impact a wide array of trombone teaching strategies.

Roberts (2002) found that the top five components of the warm-up were prioritized by the sample in this rank order: breath control and support, tone quality, relaxation and ease of playing, embouchure flexibility, and articulation. This hierarchy is

not surprising, given the attention to each developmental process in the literature (Lane, 1999). Clark (1996) also notes these juxtaposed differences and commonalities in recommended daily routines. Despite the loyalty a specific trombone teacher might have with a certain school of thought in the warm-up and daily routine, the main pedagogical performance elements often are closely related (Colegrove, 1999).

Technique Issues

Technique includes all aspects of learning music performance that are specifically related to the trombone, such as slide technique, intonation, articulation, tone production and quality, range, endurance, flexibility, clef study, and breathing. This is by far the most discussed and researched category in trombone pedagogy (Cramer, 1985; Lane, 1999; Tanner, 1970).

Intonation is a key issue for trombonists. Often the trombone is charged as the only instrument that has the ability to play always in tune, due to the ease of pitch alteration on the slide (Fonder, 1989; Martz, 1985). Elias (1999) reviewed pedagogical literature in trombone intonation, and emphasized the subtlety between playing the trombone itself in tune, and playing with an ensemble in tune. In fact, McDunn (1966) contended that the trombone has as many as 51 positions, depending on the particular partial of the desired pitch. Compound this to the system of just intonation needed when playing in an ensemble, and intonation could appear as an insurmountable obstacle (Baer, 1980). To simplify matters, the literature generally recommends to make a habit of listening carefully for intonation at all times (Brandon, 1976; Elias, 1999; Himes, 1982) while utilizing an electronic tuner for fundamental tones such as Bb (Fetter, 1987). Elias also recommends a solid foundation of the fundamentals of music vocabulary, such as

scales, arpeggios, and chord progressions (p. 35). The current pedagogical trend in intonation can be adequately summarized by simply stressing constant listening for intonation whenever one is playing the trombone. The obvious weakness to this somewhat oversimplified approach is that students with less developed musical ears would likely have difficulty playing in tune with such ambiguous direction (Gray, 1989).

Often, a trombone player must perform for extended periods of time. Endurance becomes a factor in these situations. A large majority (81%) of Roberts' (2002) sample favored endurance as an important focus of practice, with 37% of participants citing "total time spent in practice" as the most important factor in developing endurance (p. 48). Other factors cited for improvement of endurance were: "dynamic range extension," 19%; "persistence in practicing when tired," 14%; "gradual extension of practice length," 12%; and "extension of pitch range," 12% (p. 48). The literature within the *Position Papers/Books* classification of research especially supports these inferences (Appert, 1981; Bolter, 1998; Fallis, 2001; Fink, 1977; Fulkerson, 1976; Mole, 1978). Mouthpiece buzzing—related to endurance as well as pitch accuracy, tone production and quality, and other issues—is a trend that is fairly prevalent in both brass and trombone pedagogy (Farkas, 1989; Jolly & VanderArk, 1984; Sandor, 1984). Roberts (2002) found that 70% of the sample utilize mouthpiece buzzing regularly, and 40% view the method as extremely beneficial. Nearly three-fourths of the sample (72%) claim mouthpiece buzzing to be primarily developmental in nature (p. 48). Exactly how effective mouthpiece buzzing is in developing endurance is not clear. The issue of endurance on the trombone, although relatively insignificant in the attention it receives overall, is an excellent example of the multitude of pedagogical nuances idiomatic to the instrument.

Articulation on the trombone is a vital educational issue to address. Due to the nature of the instrument, nearly every note on the trombone must be articulated (Kemp, 1975; Yeo, 2000). Legato articulations are especially difficult to master due to the soft, almost reflective nature of the tongue (Uber, 1991). Exercises for double- and triple-tonguing abound in the literature (Baker, 1992; Fink, 1977; McChesney, 1995; Wick, 1971), and syllabic concepts such as "dah" versus "tah" or "dee" versus "tee" also are discussed (Clark, 1996; Fote, 1974; Humfeld, 1974; Reifsnyder, 1984). A "singing" approach to the instrument is favored by some as well, for both articulation and as a concept for musicality on the instrument (Crist, 1992; Friedman, 1995; Rocco, 1995). Lane (1999) states that "there is probably as much or more published material on [articulation] than on any other pertaining to trombone pedagogy" (p. 304). Despite this, there is no apparent consensus on the most effective method to teach the concept.

There is possibly no topic that dominates the average trombone private lesson more than breathing (Phillips & Sehmann, 1990). Arnold Jacobs, possibly the most widely recognized authority on the subject in brass pedagogy, frequently spoke of the importance of breathing in brass performance. He emphasized that the "wind"—his preferred term—was only 15% of the musical message, with the primary 85% being the song (Frederickson, 1996). Despite this apparent lack of emphasis on air, Jacobs was a pedagogical pioneer in the understanding of how a brass player can use breathing most effectively. He merely emphasizes that the musical product is primary, and the wind an impetus to that musical product: "You cannot get anywhere without wind…[in brass playing] the musical engine is the vibration of the lips…the lips cannot vibrate without wind" (Frederickson, 1996, p. 139). This view of the importance of the breath as a fuel

for musicality influenced the brass world to such a degree it is quite possibly the dominant ideology in trombone pedagogy (Hartman, 1988; Kidd, 1975; Kohut, 1985; Meinz & Manning, 2001; Phillips & Sehmann, 1990; Sehmann, 2000; Stiman, 1970). Exercises in breathing also are an integral part of many studio programs (Baker, 1992; Begel, 2002). The sample in Roberts' (2002) study listed "breath" as the primary factor for successful performance to be addressed in practice (p. 50). It should be noted that this trend of emphasis on breathing, however influential it may be, is not a new issue in trombone pedagogy. Kleinhammer (1963) has been advocating the importance of air for more than four decades, which can be taken as an indicator of the educational importance and resilience of this particular *Technique* concept.

Musicianship Issues

Musicianship issues are transferable to the entire applied music profession, and not exclusive to the trombone. Topics such as sightreading, musicality, ensemble playing, stylistic versatility, dynamic range, and rhythmic feel are included in this category. Trombone pedagogical literature addresses many of these issues, but in a more general way than the more trombone inclusive *Technique* issues.

Roberts (2002) asserts "the importance of stressing rhythm cannot be underscored enough" (p. 52). Feel for time and tempo are an important part of any musician's performance. Various resources stress the importance of rhythm and steady tempo (Baker, 1992; Fink, 1977; Kleinhammer, 1963; Wick, 1971), but rarely assert specific practice exercises for the skill. It is generally assumed to be a natural part of practice. Roberts (2002) found that 79% of the sample used a metronome daily, and 40.5% reported using one "nearly all the time" (p. 49). This greatly helps to develop consistent

tempo in music performance. In this way rhythmic feel plays an important part in trombone private lessons, but the understanding of its importance is so universal among musicians that the topic seldom appears in trombone-related literature. This is typical of issues within *Musicianship*.

A topic frequently found within the literature is issues with performance in an ensemble or section. An overlap between categories is evident here, as *Technique* issues such as intonation and tone quality become important in a different setting. For instance, learning to play in tune with other trombonists, although similar to playing in tune by oneself, requires separate knowledge and practice (Baer, 1980). Balance and blend of the section within the ensemble mandates that the player be able to understand the desired sound of the group, and fit within that model as an integral part (Bough, 2000). Performance with chamber ensembles such as brass quintets and trombone quartets is recommended in the literature as an excellent way to become acquainted with this performance area (Baker, 1992; Bough, 2000; Matchett, 1979).

Another issue that receives a good deal of attention in trombone pedagogy is stylistic versatility. As stated earlier, the trombone is utilized in a variety of musical settings and genres. The individual trombonist must therefore often perform in a variety of styles. Orchestral performance, solo literature, and jazz receive much attention, and commercial and popular playing are becoming more recognized as well (Roberts, 2002). There are indications of a movement in versatility in trombone performance, and a greater appreciation for teachers who are proficient in a multitude of styles (Ervin, 1990). Baker (1992) advocates a versatile approach for classical and jazz players, and personalizes instruction toward the individual student based on the professional direction

the student chooses. Kazik (2001) implies the differences between jazz and classical players are really similarities, and encourages open-mindedness to both stylistic genres. Lenthe and Whigham (1998) corroborate this viewpoint. Even in music education philosophy, Reimer (2003) asserts the state of music is such that soon all music education will have to come to grips with newer genres such as jazz and pop and allow such music into the mainstream curriculum (p. 195).

No issue is so prevalent in *Musicianship* than concerns regarding the musicality of performance on the trombone. An approach to a more singing- and musicality-based teaching strategy began with Remington in the 1930's (Hunsberger, 1992). This marked a divide from such technique-focused players as Pryor, a soloist with the Sousa Band (Colegrove, 1999). Through the prolific nature of Remington's teaching, and with the support of this ideology by others such as Cramer, the musicality-based teaching approach to the trombone (and brass instruments in general) became the mainstream pedagogical ideology (Colegrove, 1999). Jacobs especially took this teaching strategy and developed it to even greater heights, incorporating the music and breath—song and wind—into nearly every nuance of his teaching strategies (Frederickson, 1996). The topic of musicality and a singing approach to the trombone is now prevalent in the literature, and indeed might have become the dominant feature of issues in *Musicianship* (Crist, 1992; Friedman, 1995; Rocco, 1995; Wick, 1971). This is further evidenced by Edwards' (2002) finding of the most widely utilized etude book among college trombone professors: the *Melodious Etudes, volume 1* (Bordogni, 1928). This etude book is in fact an edition of the original vocalises by Bordogni written especially for vocalists, and is used in trombone teaching as a means to emphasize a singing and very musical approach

to the instrument (Mitchell, 1989). Most trombonists use this book either in practice or in teaching to stress musicality in trombone performance (Fallis, 2003).

It is worthwhile to note that specific issues within *Philosophy*, *Technique*, and *Musicianship* can be interrelated. For example, a trombone teacher might decide to utilize the Bordogni (1928) etude book to address intonation and articulation issues with a student while still stressing the musicality of performance as paramount—a combination of all three categories of pedagogical issues. In other words, it is possible that the teaching strategies of successful trombone professors could be multi-conceptual in nature. This seems logical due to the multi-conceptual nature of music itself (Kang, 2003).

Summary

The review of the literature reveals specific issues and topics of interest to the trombone pedagogical community. Addressing these myriad of concerns in trombone performance for the college-level teacher is an involved process that requires time, patience, and understanding of the issues themselves. Identification of these issues is just the first step in the actual teaching process. The research question of the current study is the logical query after reviewing the existing literature: what teaching strategies do successful college professors utilize in teaching undergraduate trombone students?

The identified issues in this chapter were deemed appropriate for the purpose of this study, and so were included in the interview instrument for data collection. The assumption that guided this assertion was that adequate and appropriate data could only be found if the instrument itself was rooted within the literature. Based upon the

categorization of pedagogical issues delineated earlier in this chapter, a list of specific educational topics that were addressed for the current research was formulated:

- Philosophy of Playing/Teaching
    - Practice Philosophy
    - Etude/Method Books/Technology Utilized
    - Warm-ups/Daily Routine
- Technique Issues
    - Breathing/Air Control
    - Slide Technique
    - Intonation
    - Articulation
    - Sound and Tone Quality
    - Range and Endurance
- Musicianship Issues
    - Rhythm
    - Sightreading
    - Ensemble Performance
    - Varying Styles

This list is fairly comprehensive, and is rooted in commonly accepted areas of interest in the trombone pedagogical community. Although somewhat broad in nature, this list represents the absolutely vital components of trombone pedagogy, those issues with which every trombone performer must undertake in order to achieve any amount of success. Therefore, every trombone teacher must address these issues in some way with

his or her students to assure their success. It is within this collection of topics of interest that one must look to conduct meaningful research into successful trombone teachers' teaching strategies and attempt to understand why these strategies are so effective.

Chapter 3

Method

This research examined the teaching strategies of three successful college professors in teaching undergraduate trombone students. In this chapter, participants of the study, research instruments, procedures, and research design are explained. A summary concludes the chapter.

Criteria for Research Participation

The participants for the research were case studies of a sample of three ($n = 3$) college trombone professors who met three specific predetermined criteria:

1. A tenured full professor at a National Association of Schools of Music (NASM) accredited college or university
2. Received either the Neill Humfeld Award for Excellence in Teaching or the ITA Award, presented by the International Trombone Association (see Tables 1 and 2)
3. Taught undergraduate trombone students for at least 10 years.

The first two of these criteria defined a "successful" trombone teacher. Those who filled both requirements were fairly few in number (approximately 40), and represented what might be called the distinguished elite in the trombone community. These professors have both ability and experience, and could represent "successful" teachers of the trombone as fully as possible. The third criterion assured that each professor who met the first two requirements also had practiced his or her teaching

strategies on the desired population for the purposes of the research question (undergraduate students). The relatively small number of participants ($n = 3$) was due to the unique quality of the sample as well as the research design of the study.

Necessarily, the sampling scheme for the study was criterion-based purposive and non-random (Miles & Huberman, 1994; Onwuegbuzie & Leech, in press). There were considerations of location and accessibility, as well as monetary concerns for recording equipment and phone calls versus in person travels. Because by nature the population was so unique, the interview process was conducted via telephone. This process was recorded for the purposes of transcription and analysis.

Ethical Considerations

All participants in this study were adults, and well respected in the field of trombone education. Permission forms signifying informed consent the research were produced and signed before the research was conducted. Any concerns were addressed until the potential participant was satisfied or withdrew from the research. This was in compliance with University Institutional Review Board (IRB) requirements.

Furthermore, each participant was informed of the intent to record the interview for transcription purposes. Their acquiescence to record the interview and retain that data for the possibility of future research was obtained and recorded during the interview (see Appendix A). This was also in compliance with IRB stipulations.

Participants

In alphabetical order, the three participants were John Drew, John Marcellus, and Curtis Olson (see Tables 1 and 2). All three met the study's criteria for a "successful" trombone professor. At the time the research was conducted, Drew was professor of

trombone at Florida State University, was the 1992 recipient of the Neill Humfeld Award from the ITA, and had been teaching trombone at the college level for over 25 years. Marcellus was professor of trombone at the Eastman School of Music, was the 1999 recipient of the ITA Award, and had been teaching trombone at the college level for over 28 years. Olson was professor of trombone at Michigan State University, was the 2002 recipient of the Neill Humfeld Award by the ITA, and had been teaching trombone at the college level for over 21 years. Each was interviewed using the instrument developed for the study's research.

Qualitative Instrument

The qualitative instrument was loosely based on Clark's (1996) interview instrument, with revisions that were consistent with the pedagogical issues found in the literature review. With the assumption that the review was as thorough as possible, the instrument was deemed suitable for use in the current study to examine the teaching strategies of successful professors within that field. To evaluate further the appropriateness of the instrument, a pilot study with a local trombone professor was conducted. Each item on the instrument was scrutinized in that process by the researcher. The revised 28-question instrument then was administered to the actual participants. Questions were posed in an informal semi-structured format, with additional probing and follow-up questions to specific areas of interest (Patton, 2002). The length of each interview was between 45 minutes and 75 minutes.

Based on the trombone educational issues identified in Chapter 2, sample questions each interviewee was asked included (see Appendix A for a full list of questions):

- *Philosophy*
  - How much practice time do you recommend per day/week?
  - When you use method books, do you mostly use them to teach a single concept (i.e., legato tongue, tenor clef, lip slurs), a combination of concepts, or both?
- *Technique*
  - Please describe how you address breathing in your teaching strategies.
  - How important is listening to recordings and live performances to the concept of sound and tone?
- *Musicianship*
  - What importance do you attach to stylistic versatility in your students' playing?
  - Please describe how you develop students' rhythmic sense and feel.

An example of a probing question to the first sample question was:

- How do you recommend distributing this time throughout the day/week?

Procedures

Each participant in the study was administered the complete interview instrument via telephone. The time of day for the interview was determined by each participant. The interview was recorded for transcription purposes with a telephone tape recorder. The participant's consent was obtained before recording, and the consent was also documented both in the transcription and on the recording itself for logistical purposes. The full instrument with script is attached in Appendix A.

To transcribe the data, Gorden's (1980) framework for nonverbal communication was utilized. Specifically, in addition to the actual words of the participants, both *chronemic* and *paralinguistic* modes of communication were included in the transcription process. Respectively, these modes are the use of pacing in speech including length of silence in conversation (*chronemic*), and all variations in volume, pitch, and quality of the voice (*paralinguistic*). According to Fontana and Frey (2005), the use of these modes are important techniques "because interview data are more than verbal records and should include, as much as possible, nonverbal features of the interview" (p. 713). It was hoped that the inclusion of these modes of communication resulted in richer data.

After the raw data were transcribed, the researcher corroborated the data by a review of the recordings. After any necessary revisions, the final transcription of the interview was sent to each respective participant for review and validation before analysis. The revisions made to the data by the participants were all clarification issues; there were no new data added. Therefore, all revisions were accepted and included in the final data set (see Appendices B, C, and D).

The research paradigm of this study was qualitative (Lincoln & Guba, 1985) and the paradigm correlate was constructivist (Guba & Lincoln, 2005). This was appropriate for this study because it dealt with concepts of teachers' strategies, which were necessarily constructs or ideas of the teachers themselves. The research design was a multiple or collective case study (Stake, 2005). This is a collection of individual case studies grouped together because "it is believed that understanding them will lead to better understanding, and perhaps better theorizing, about a still larger collection of

cases" (Stake, 2005, p. 446). It was hoped that this design would facilitate a more complete understanding of how successful trombone professors teach the trombone.

Qualitative Analysis

The qualitative data were analyzed using classical content analysis (Patton, 2002). This method of analysis is aimed at coding the data to identify themes, and then counting the number of codes within and among the participants to identify emergent patterns or themes. This made it ideal for the purposes of finding commonalties in teaching strategies in this research. Content analysis also lends itself to a theory-building approach, which facilitated recommendations made to the trombone educational community based on the study (Leech & Onwuegbuzie, 2005). The nature of the data analysis was exploratory, as the intent was to understand successful teachers' strategies, not to confirm a hypothesis of those strategies.

The coding was conducted by hand, and then transferred to the left hand margin of the transcribed interviews for inclusion in Appendices B, C, and D. Each data set was analyzed once to identify coded themes, and then again for the actual process of labeling each important passage in a systematic way. The list of pedagogical issues identified through the literature review (see Table 4) was used as broad theme categories, with more specific coded themes underneath those broader categories extrapolated from the data. In this way the integrity of the literature-based framework of the study was not compromised, while still allowing for the identified coded themes to stem from the actual data, and not from the bias of the researcher. The analytical process will be discussed in more detail in Chapter 4.

Legitimation

It was hoped the findings of this research were legitimized through the research process itself. Validity was strengthened by using Maxwell's (1992) framework. *Descriptive validity*, or factual accuracy of the data, was verified via the data validation process of both the researcher and participant prior to analysis. *Interpretive validity*, or the extent to which the researcher's interpretation and analysis of the data represented the meanings of the participants, was carefully constructed, with the participants' inherent themes in their teaching strategies being the goal of the thematic coding and interpretation. Finally, the *theoretical validity*, or the credibility and defensibility of any theoretical explanation derived from the findings, was logically tied to both the descriptive and interpretive validity, and was further supported by the literature for greater legitimation (Maxwell, 1992).

Summary

This chapter outlined the proposed research regarding participants, ethical considerations, instrumentation, procedures, design, analysis, and discussed the legitimation of the study. Sample questions were provided for the qualitative instrument. Concerns regarding design and analysis were presented, to be revisited in Chapter 5.

Although the methodology can never be perfect for such a case-study oriented design, and external validity could always be challenged, the assumption that good teachers' strategies and philosophies can be transferred is sound, and one that is shared by many music educators across the globe. It was hoped the research was as controlled as was necessary and appropriate, and that the true voice of the data was found. The trombone pedagogical community might hopefully benefit greatly from this research, and

the commonalities in these successful professors' teaching strategies could be valuable to both teachers and students of the trombone alike.

Chapter 4

Results

In this chapter, the analysis of the data is presented, described, and categorized. A conceptual diagram of the results, including all emergent themes, also is presented. Solo themes and solo cited passages in the data set are identified, and commonalities and differences among the participants' teaching strategies are presented for further examination. A summary will conclude the chapter.

The data were analyzed using classical content analysis, in which emergent themes from the authenticated data are coded and then counted for frequency of use (Patton, 2002). In this study, the researcher included both these thematic codes for the actual analysis and location codes for ease in reference. Each important passage of data was labeled with both a thematic and location code for the purposes of analysis and description, respectively. In this way, certain commonalities and relationships became apparent among the research participants.

Thematic Coding

For the purposes of analysis, each important passage was labeled with a thematic code in the left margin of each transcribed interview (see Appendices B, C, and D). An example of a thematic code was "Ph:WR:MB:LU", which indicated "Philosophy: Warm-up/Routine: Mouthpiece Buzzing: Little to No Use". A location code for this particular example was "JM 1.3.2.1" which indicates this datum chunk may be found in John Marcellus's interview in the first interview category (Philosophy), third sub-category

(Warm-ups/Daily Routine), second question ("Do you advocate mouthpiece buzzing to your students?"), and was the first coded passage from this question. Another example was "M:R:S" for the thematic code and "JD 3.1.1.4" for the location code. This refers to the theme of "Musicianship: Rhythm: Subdivision and Internalization of the Beat/Pulse", and can be found in John Drew's interview under the third interview category (Musicianship), first sub-category (Rhythm), first question ("Please describe how you develop your students' rhythmic sense and feel"), and was the fourth coded passage for this question. Drew also was the only participant coded with a fourth location category after the actual interview questions and near the conclusion of the interview. A full key of thematic codes used in the analysis can be found in Table 5.

Table 5

Key of Emergent Theme Codes with Frequency Count and Distribution

Code	Theme	Frequency*
M	Musicianship	N/A
M:EP	Musicianship: Ensemble Performance	N/A
M:EP:LF	Musicianship: Ensemble Performance: Literature Familiarity	1/0/2/3
M:EP:TIC	Musicianship: Ensemble Performance: Using Technique in Context (of ensemble)	1/4/2/7
M:R	Musicianship: Rhythm	N/A
M:R:APSB	Musicianship: Rhythm: Awareness of Primary and Secondary Beats	0/2/2/4

Table 5 (continued)

Code	Theme	Frequency*
M:R:RMB	Musicianship: Rhythm: Relation to Marching Band	0/1/0/1
M:R:S	Musicianship: Rhythm: Subdivision/Internalization of the Beat/Pulse	2/2/2/6
M:R:SC	Musicianship: Rhythm: Specific Concepts/Exercises	1/1/2/4
M:R:UM	Musicianship: Rhythm: Use of a Metronome	N/A
M:R:UM:HU	Musicianship: Rhythm: Use of a Metronome: Fair to High Use	3/1/3/7
M:R:UM:LU	Musicianship: Rhythm: Use of a Metronome: Little to No Use	N/A
M:SR	Musicianship: Sightreading	N/A
M:SR:PWS	Musicianship: Sightreading: Playing With Student	1/1/1/3
M:SR:SC	Musicianship: Sightreading: Specific Concepts/Exercises	3/2/1/6
M:VS	Musicianship: Varying Styles	N/A
M:VS:CG	Musicianship: Varying Styles: Common Ground (between styles)	0/2/1/3
M:VS:IP	Musicianship: Varying Styles: Importance for Performers	N/A
M:VS:IP:H	Musicianship: Varying Styles: Importance for Performers: High	3/3/2/8

Table 5 (continued)

Code	Theme	Frequency*
M:VS:IP:L	Musicianship: Varying Styles: Importance for Performers: Low	N/A
M:VS:TA	Musicianship: Varying Styles: Teaching Approach	N/A
M:VS:TA:LE	Musicianship: Varying Styles: Teaching Approach: Little to No Emphasis	1/0/1/2
Ph	Philosophy	N/A
Ph:CIC	Philosophy: Core Ideas and Concepts	15/2/3/20
Ph:CIC:MTS	Philosophy: Core Ideas and Concepts: Multi-conceptual Teaching Strategies	4/7/7/18
Ph:CIC:TI	Philosophy: Core Ideas and Concepts: Teaching to the Individual	5/0/1/6
Ph:HI	Philosophy: Hierarchy of Importance	8/2/3/13
Ph:HI:ML	Philosophy: Hierarchy of Importance: Model versus Lecture	3/0/0/3
Ph:HI:OC	Philosophy: Hierarchy of Importance: Order of Concepts	7/4/5/16
Ph:HI:SS	Philosophy: Hierarchy of Importance: Student's Standards	3/0/0/3
Ph:HI:TM	Philosophy: Hierarchy of Importance: Technique versus Music	8/1/0/9

Table 5 (continued)

Code	Theme	Frequency*
Ph:SI	Philosophy: Specific Issues	N/A
Ph:SI:EMB	Philosophy: Specific Issues: Etude/Method Books Used	1/1/1/3
Ph:SI:EMB:C	Philosophy: Specific Issues: Etude/Method Books Used: Clefs	1/0/2/3
Ph:SI:EMB:T	Philosophy: Specific Issues: Etude/Method Books Used: Technique	2/3/2/7
Ph:SI:P	Philosophy: Specific Issues: Practice Time	2/0/0/2
Ph:SI:P:AT	Philosophy: Specific Issues: Practice Time: Amount of Time	3/2/3/8
Ph:SI:P:E	Philosophy: Specific Issues: Practice Time: Efficiency of Time	5/1/0/6
Ph:SI:P:M	Philosophy: Specific Issues: Practice Time: Mental Practice	1/0/0/1
Ph:SI:P:M:R	Philosophy: Specific Issues: Practice Time: Mental Practice: Other Resources	2/0/0/2
Ph:SI:P:M:SP	Philosophy: Specific Issues: Practice Time: Mental Practice: Score/Piano Study	0/1/0/1
Ph:SI:P:M:V	Philosophy: Specific Issues: Practice Time: Mental Practice: Visualization	1/1/2/4

Table 5 (continued)

Code	Theme	Frequency*
Ph:SI:P:P	Philosophy: Specific Issues: Practice Time: Patience in Practicing	2/0/0/2
Ph:SI:TS	Philosophy: Specific Issues: Technology/Software Used	N/A
Ph:SI:TS:HU	Philosophy: Specific Issues: Technology/Software Used: Fair to High Use	0/4/0/4
Ph:SI:TS:LU	Philosophy: Specific Issues: Technology/Software Used: Little to No Use	1/0/1/2
Ph:WR	Philosophy: Warm-up and Routine	N/A
Ph:WR:F	Philosophy: Warm-up and Routine: Fundamentals	1/3/3/7
Ph:WR:FB	Philosophy: Warm-up and Routine: Free Buzzing	2/0/0/2
Ph:WR:II	Philosophy: Warm-up and Routine: Issues for Improvement (specific to student)	6/1/2/9
Ph:WR:MB	Philosophy: Warm-up and Routine: Mouthpiece Buzzing	0/0/1/1
Ph:WR:MB:HU	Philosophy: Warm-up and Routine: Mouthpiece Buzzing: Fair to High Use	3/0/2/5
Ph:WR:MB:LU	Philosophy: Warm-up and Routine: Mouthpiece Buzzing: Little to No Use	0/1/0/1

Table 5 (continued)

Code	Theme	Frequency*
Ph:WR:SC	Philosophy: Warm-up and Routine: Specific Concepts/Exercises	N/A
Ph:WR:ST:R	Philosophy: Warm-up and Routine: School of Thought: Remington	1/3/5/9
T	Technique	N/A
T:A	Technique: Articulation	N/A
T:A:PB	Technique: Articulation: Product-Based	1/1/2/4
T:A:S	Technique: Articulation: Syllabic Concepts	2/0/0/2
T:A:S:HU	Technique: Articulation: Syllabic Concepts: Fair to High Use	N/A
T:A:S:LU	Technique: Articulation: Syllabic Concepts: Little to No Use	2/1/1/4
T:A:SC	Technique: Articulation: Specific Concepts/Exercises	2/3/1/6
T:A:TP	Technique: Articulation: Tongue Placement	3/0/0/3
T:B	Technique: Breathing/Air	N/A
T:B:OOC	Technique: Breathing/Air: Openness of Oral Cavity/Throat	2/0/1/3
T:B:OOC:BT	Technique: Breathing/Air: Openness of Oral Cavity/Throat: Use of Breathing Tube	3/0/0/3

Table 5 (continued)

Code	Theme	Frequency*
T:B:PB	Technique: Breathing/Air: Product-Based	0/2/1/3
T:B:PC	Technique: Breathing/Air: Physical Considerations	2/0/0/2
T:B:RE	Technique: Breathing/Air: Relation to Everything (integral to teaching)	2/5/2/9
T:EM	Technique: Embouchure	N/A
T:EM:NT	Technique: Embouchure: No Tongue; Initial Attack	3/2/0/5
T:EM:PB	Technique: Embouchure: Product-Based	0/1/1/2
T:EM:SM	Technique: Embouchure: Specific Muscles	4/0/1/5
T:EN	Technique: Endurance	N/A
T:EN:D	Technique: Endurance: Demands of Practice	3/1/1/5
T:EN:TSP	Technique: Endurance: Time Spent Playing	1/1/2/4
T:I	Technique: Intonation	N/A
T:I:SA	Technique: Intonation: Student's Awareness	3/2/0/5
T:I:SA:ET	Technique: Intonation: Student's Awareness: Ear Training	4/5/2/11
T:I:SA:PO	Technique: Intonation: Student's Awareness: Playing with Others	2/1/3/6
T:I:SA:VC	Technique: Intonation: Student's Awareness: Volume Considerations	0/1/0/1
T:I:TI	Technique: Intonation: Tendencies of the Instrument	2/1/3/6

Table 5 (continued)

Code	Theme	Frequency*
T:I:UT	Technique: Intonation: Use of a Tuner	N/A
T:I:UT:HU	Technique: Intonation: Tuner Use: Fair to High Use	2/1/1/4
T:I:UT:LU	Technique: Intonation: Tuner Use: Little to No Use	0/1/0/1
T:RR	Technique: Range and Register	1/0/0/1
T:RR:CE	Technique: Range and Register: Change in Embouchure	4/0/1/5
T:RR:MD	Technique: Range and Register: Muscular Development	3/0/1/4
T:RR:RA	Technique: Range and Register: Relation to Air/Breath	4/1/2/7
T:RR:S	Technique: Range and Register: Syllabic Concepts	3/0/0/3
T:RR:UP	Technique: Range and Register: Use of Partials	0/2/0/2
T:ST	Technique: Slide Technique	N/A
T:ST:AP	Technique: Slide Technique: Alternate Positions	N/A
T:ST:AP:HU	Technique: Slide Technique: Alternate Positions: Fair to High Use	1/2/0/3
T:ST:AP:LU	Technique: Slide Technique: Alternate Positions: Little to No Use	0/0/2/2
T:ST:P	Technique: Slide Technique: Practicality	1/0/2/3

Table 5 (continued)

Code	Theme	Frequency*
T:ST:SC	Technique: Slide Technique: Specific Concepts/Exercises	3/2/3/8
T:STQ	Technique: Sound and Tone Quality	N/A
T:STQ:L	Technique: Sound and Tone Quality: Listening	3/2/0/5
T:STQ:L:LP	Technique: Sound and Tone Quality: Listening: Live Performances	1/0/0/1
T:STQ:L:R	Technique: Sound and Tone Quality: Listening: Recordings	2/1/0/3
T:STQ:M	Technique: Sound and Tone Quality: Modeling (in context of the lesson)	2/0/4/6
T:STQ:MB	Technique: Sound and Tone Quality: Mouthpiece Buzzing	0/0/2/2
T:STQ:PC	Technique: Sound and Tone Quality: Physical Considerations	0/0/1/1
T:STQ:SA	Technique: Sound and Tone Quality: Student Awareness	0/2/2/4

*Frequency is presented by distribution of cited passages: Drew/Marcellus/Olson/Total

The themes identified by these various codes emerged from the data under the categorization extrapolated from the literature review (see Table 4): Philosophy (Ph), Technique (T), and Musicianship (M). In this way the framework for the study was

integrated into the analysis, while still allowing for the voice of the data to be the guide for the emergent themes. It was hoped that researcher bias thus was minimized. A detailed diagram for each category of thematic code is delineated in Figures 1, 2, and 3.

Figure 1. *Emergent Themes Within Philosophy*

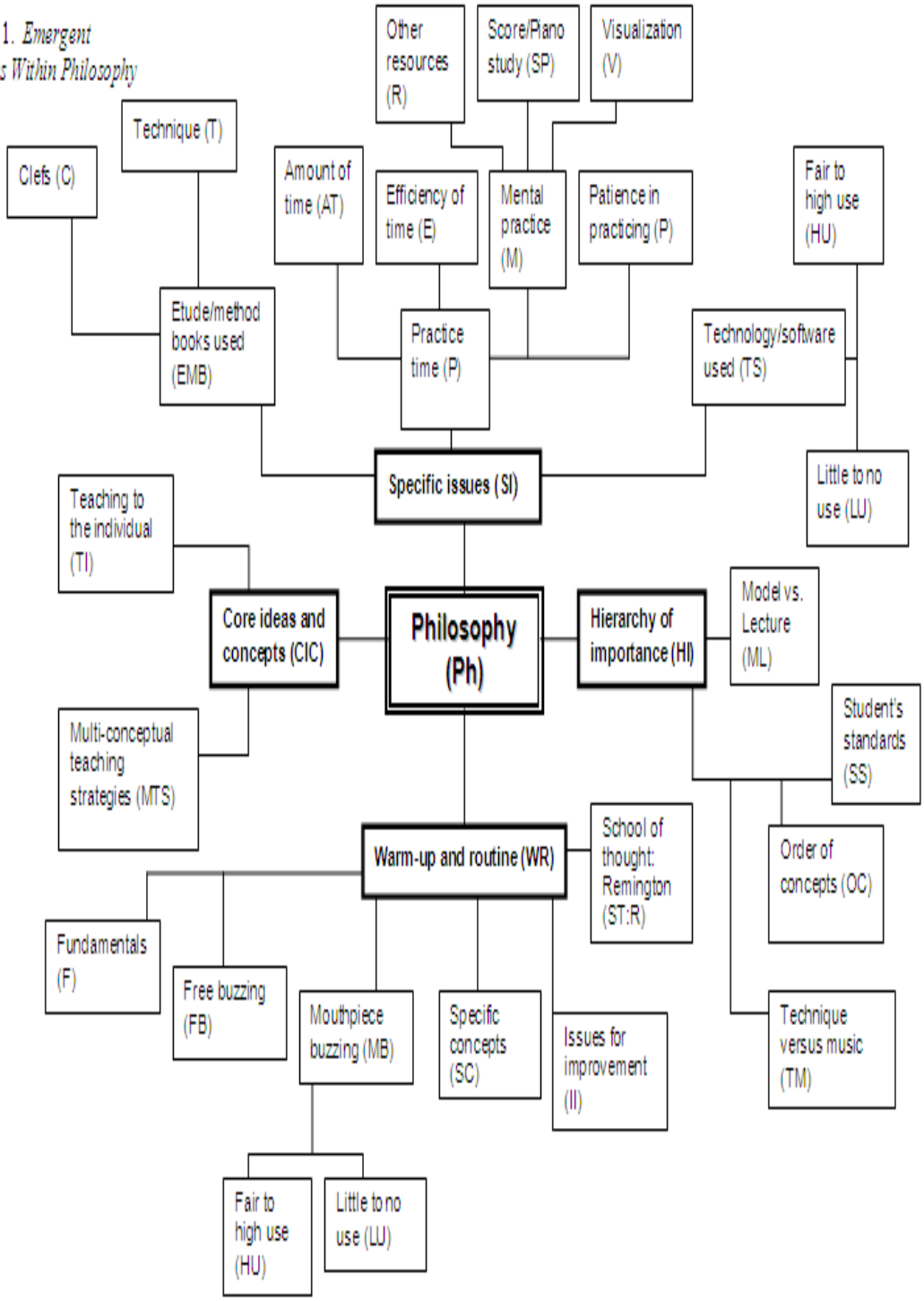


Figure 2. *Emergent Themes Within Technique*

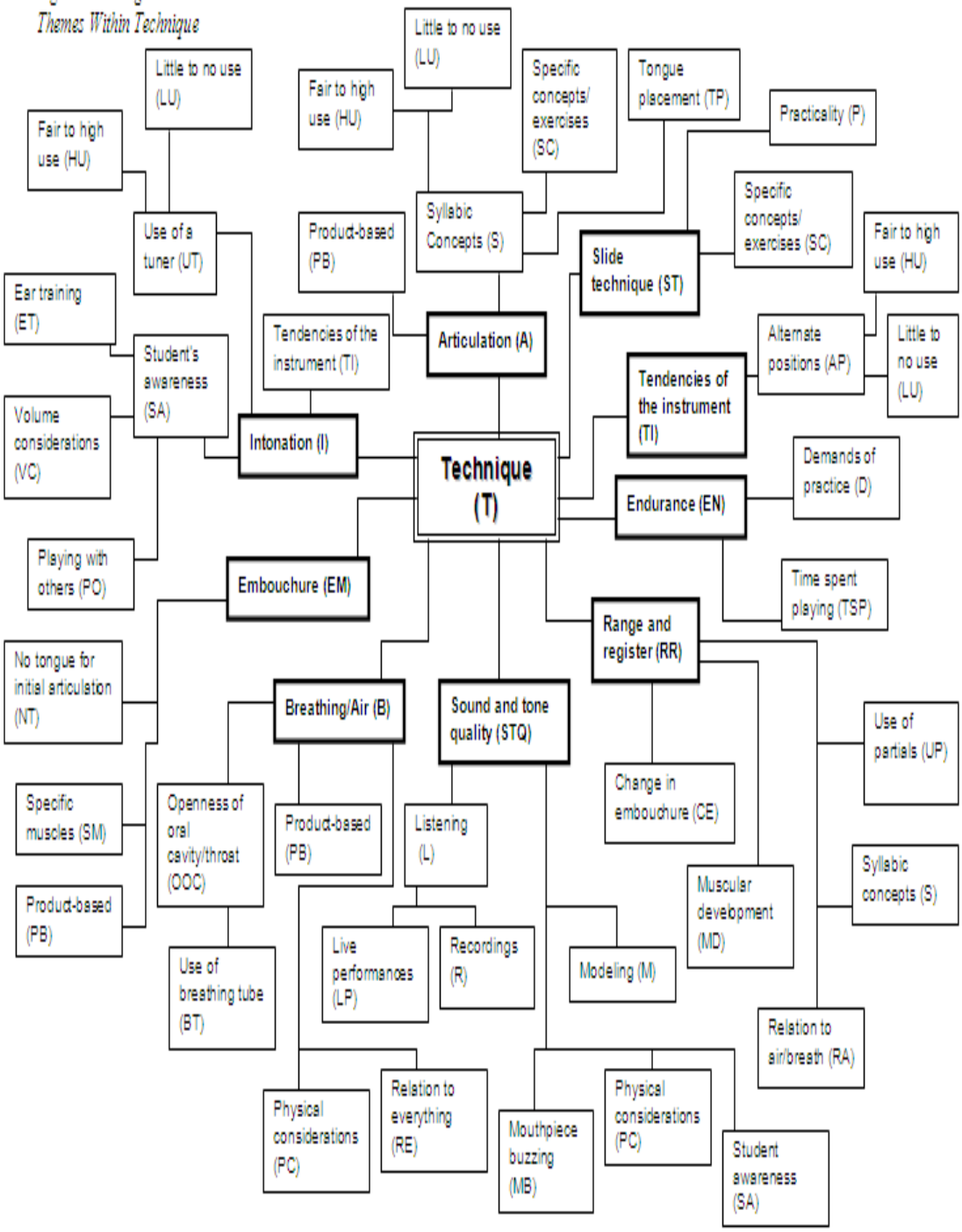
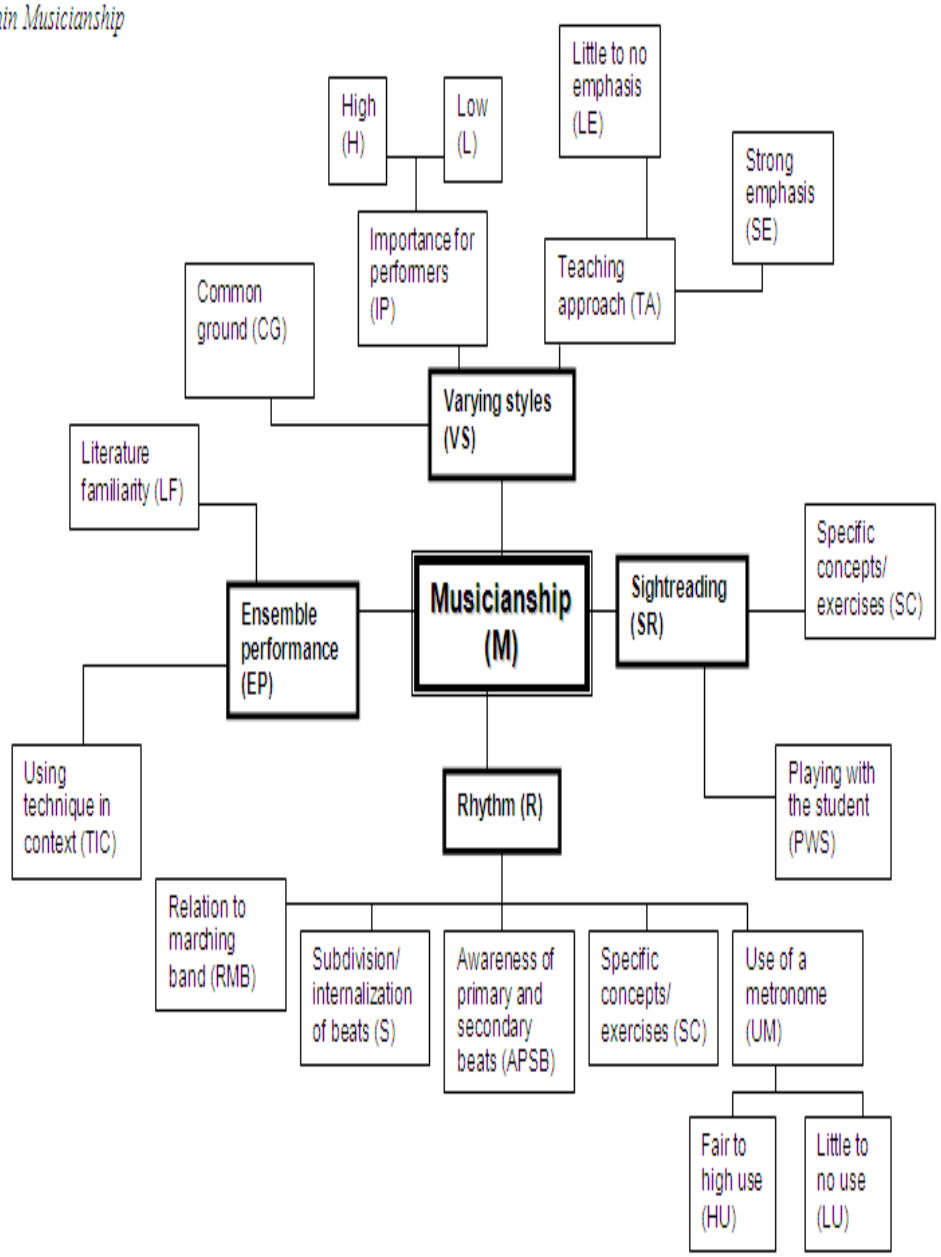


Figure 3. *Emergent Themes Within Musicianship*



Each coded theme was counted for frequency, both in each individual interview and collectively among the full data set. The number of times a theme was cited can be cautiously viewed as a level of importance among these three successful trombone professors. However, it is important to note that sometimes the strength of a particular chunk of data was so definitive that the participant only felt the concept needed to be mentioned once. This has been taken into account, and will be explained in more detail later in the chapter.

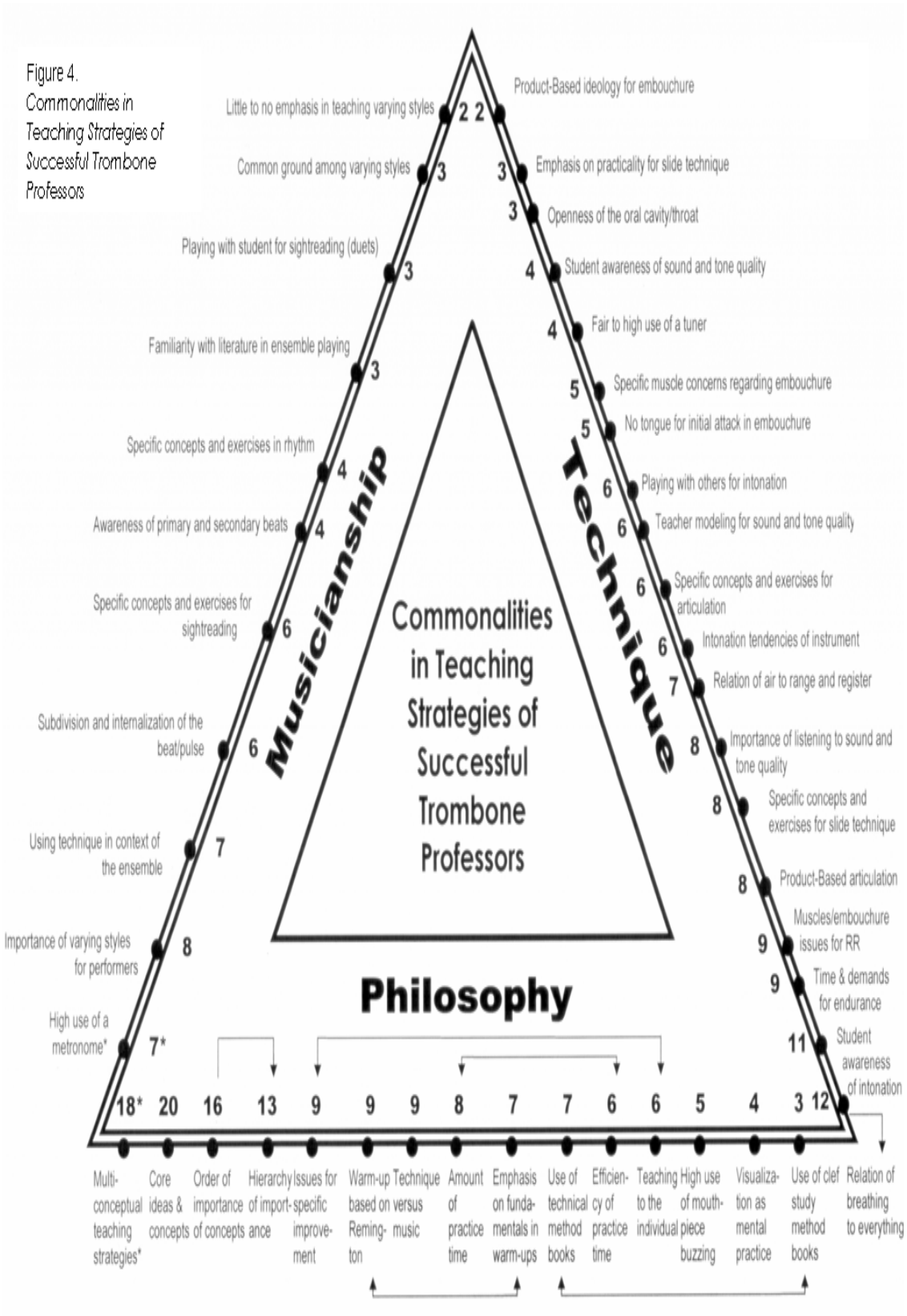
From the frequency of cited themes and a review of the respective data, multiple commonalities among the participants' teaching strategies began to emerge. Several solo themes, defined in this context as a theme that was cited three or less times and by only one out of the three participants, also became evident. Solo cited passages within these solo themes also were elucidated. Moreover, differences between teaching strategies were found, although substantially fewer in number than the commonalities. These differences are informative in their own way, and will be examined more fully later. It is within the commonalities where the most pertinent information to successful trombone teaching strategies was found.

Figure 4 delineates commonalities among emergent themes. Although these themes are separated within their respective categories, it became overwhelmingly evident that the relationship among each category and each theme was extremely subtle and complex. This was supported by the most strongly overall cited theme: Multi-Conceptual Teaching Strategies (Ph:CIC:MTS). This had the broadest distribution among the three participants: 4 times by Drew, and 7 each by Marcellus and Olson, for a total of 18 appearances. This theme was typified by such statements as Marcellus using

etude books to teach multiple concepts "because the etudes are really what they are—a study in the music. When you have compositions by various composers you run into styles, but you're running into also technical aspects of articulations and combining articulation with detached playing and legato" (JM 1.2.2.1). Olson concurred: "…Ultimately when [students] play music…they have to combine all the different aspects of playing at once: articulation, and clef reading, and musicianship, and style. So it's always best to incorporate all those things at one time [in practice]" (CO 1.2.2.4). Drew spoke of combining concepts in a more individualized manner, describing a mixture of teaching breathing both physically and conceptually, "depending upon the student" (JD 2.1.2.1). The teaching strategies of these professors have been dictated, to some extent, by the essentially multi-conceptual nature of music (Kang, 2003).

Any attempt to simplify such intricate teaching strategies into something as simple as a figure is fraught with risk. However, if one is interested in merely identifying areas of importance in trombone teaching strategies, a figure can be a valuable tool. Therefore, Figure 4 should not be viewed in the context of an attempt at a definitive model for teaching the trombone—it is merely a guideline for indications of what may be important in such teaching strategies based upon the data.

Figure 4.
Commonalities in Teaching Strategies of Successful Trombone Professors



Although Figure 4 was originally designed as an equilateral triangle, it should be noted that not all sides of this particular geometric shape are equal. It is no accident that Philosophy is the base of the triangle, because not only is it sensible that this category provides support for the other two, but it is also the most cited category (167 cited passages; excluding solo cited passages, 145). This is partly due to the relative broadness of the themes within it. Yet, the number of interview questions in the Philosophy category is far less than the Technique category (8 compared to 14 questions, respectively). Why then did the Philosophy category yield more themes upon analysis? Inferences will be postulated in Chapter 5, but for the purposes of Figure 4, it is fair to surmise that issues within the Philosophy category are important in some fundamental sense to each of these successful trombone professors.

The Technique right arm of Figure 4 was the second most cited category, with 154 cited passages (excluding solo cited passages, 130). Due to the specific nature of the issues and concepts within this idiomatic category, this category had the most actual coded themes by a considerable amount. Technique had 39 themes cited (excluding solo themes, 25), compared to 28 themes for Philosophy (excluding solo themes, 15) and 12 for Musicianship (excluding the solo theme, 11). Referred to as the "nuts and bolts" by Drew (JD 4.1.1), the issues within the Technique category are multifaceted and are addressed through a variety of teaching strategies by the participants.

The category of Musicianship was far behind in both number of cited passages (54 total, excluding solo cited passages, 53) and actual number of coded themes (12 total, excluding solo themes, 11). This may be due in part to the quality of the issues within the category; representing musically broader topics and generally being more specific to

overall musicianship than actual trombone pedagogy, these issues often may not be dealt within the context of the private lesson. However, it is interesting to note that only within the Musicianship category were there only commonalities, and no differences in teaching strategies among the participants. There was also only one solo theme and one solo cited passage, compared to 14 and 13 solo themes and 24 and 22 solo cited passages in the Technique and Philosophy categories, respectively. This may suggest that issues within Musicianship are more consistently agreed upon among successful trombone teachers. See Table 6 for total frequency counts within each pedagogical category.

Table 6

Frequency Counts of Emergent Themes, Cited Passages, and Solos Within Pedagogical Category

Category	Emergent Themes	Cited Passages (CP)	Solos
Philosophy	28 (15 excl. solos)	167 (145 excl. solos)*	13 themes (22 CP)
Technique	39 (25 excl. solos)*	154 (130 excl. solos)	14 themes (24 CP)
Musicianship	12 (11 excl. solos)	54 (53 excl. solos)	1 theme (1 CP)*
Totals	79 (51 excl. solos)	375 (328 excl. solos)	28 themes (47 CP)

*superlative categorical value

Commonalities: Themes Within Philosophy

One may cautiously accept the frequency totals and distributions from Tables 5 and 6 as a starting point for understanding the importance of each emergent theme. However, as stated earlier, the actual data must be scrutinized to understand the relative

strength of each theme. For instance, although the theme of Multi-Conceptual Teaching Strategies (Ph:CIC:MTS) had a lower frequency total (18) than Core Ideas and Concepts (Ph:CIC; frequency count of 20), the cited passages had a more even distribution within Multi-Conceptual Teaching Strategies, suggesting it was the more important theme (across Drew/Marcellus/Olson, the distribution was 4/7/7 for Ph:CIC:MTS compared to 15/2/3 for Ph:CIC). This irregularity was one of two such anomalies, and was denoted in Figure 4 with an asterisk.

As asserted earlier, the theme of Multi-Conceptual Teaching Strategies was likely cited most frequently because of its relation to the multifaceted nature of music itself. As Marcellus aptly put it, "It's kind of hard (laughing while speaking) to answer some of these [questions] because everything is so intertwined into how one teaches" (JM 1.3.3.4). The theme of Core Ideas and Concepts, however, was possibly more educationally based in nature. Drew went so far to label his overriding philosophy of "concepts, principles, and fundamentals" (JD 1.1.1.1) with a diagram of this ideology (see Appendix F), showing a deliberate and methodical approach to teaching the trombone: "I think a lot of my teaching focus deals less with the specifics than it does with the fundamentals that govern the specifics" (JD 4.1.5). Although Core Ideas and Concepts may very well be the broadest theme of all, it is important to understand the importance of the thoughtful foundation these successful professors have established before even beginning to utilize their specific teaching strategies.

The next two most cited themes had only a subtle distinction to differentiate them. Order of Importance of Concepts (Ph:HI:OC) was cited 16 times (distribution of 7/4/5), Hierarchy of Importance (Ph:HI) was cited 13 times (distribution of 8/2/3). The basic

difference rested in the hierarchical nature of the themes: Order of Importance of Concepts dealt with specific teaching strategies, whereas its parent theme Hierarchy of Importance represented a more fundamental philosophical ordering of ideas. For instance, in a passage that was coded as Order of Importance of Concepts, Olson described how he approaches intonation with his students in a typical one-hour lesson: "we'd do probably 15 minutes in every lesson—no kidding—15 minutes of tuning exercises with me playing some other interval" (CO 2.3.1.4). A decision regarding the ordering of concepts within the span of time was made, signifying the importance of this particular concept. In contrast, for the theme of Hierarchy of Importance, Olson described how integral sound and tone concept were to his teaching: "This is, above all, the most important thing a teacher can give their student—is a concept of tone" (CO 2.5.1.1). This broader and more fundamental belief within the Hierarchy of Importance theme controlled the specifics within the theme of Order of Importance of Concepts. From the high frequency counts, it seemed that both themes were important to successful professors.

The theme of Issues for Specific Improvement within the warm-up (Ph:WR:II) was cited 9 times (distribution of 6/1/2). Although each participant to some extent acknowledged a shift in teaching approach depending upon the individual student, Drew in particular stressed this theme. "…What I will do is I will extract [the problematic issues while playing a solo or an etude] and I'll move those to my routines. Long after the etude is played or the solo has been performed, then if that thing is still problematic in my playing, then I'm going to be doing that over and over and over…after a while, what was a weakness hopefully becomes a strength" (JD 1.3.1.12; JD 1.3.1.13). This

pragmatic and highly individualized method of approaching performance issues was the dominant concept within this theme.

Although prominently featured in the literature review, the emergent theme of Remington-based Warm-ups (Ph:WR:ST:R) was somewhat surprisingly prevalent, with a frequency count of 9 cited passages (distribution of 1/3/5). Marcellus described his recommended warm-up as "a point of departure from the Remington" (JM 1.3.1.1), while Olson labeled his suggested warm-up as "true to form [of Remington]. I thought that was the best possible program" (CO 1.3.3.1). This supports the contention of Remington's ubiquitous influence on the trombone pedagogical community (Colegrove, 1999; Hunsberger, 1992).

Despite being cited 9 times, the theme of Technique Versus Music (Ph:HI:TM) was distributed very unevenly (8/1/0), making it less important overall as a commonality. Notwithstanding, the theme was stressed heavily by Drew: "the air is the vehicle for the sound and the technique provides the notes, but it's all in the service of music" (JD 4.1.7). Drew went even further and more strongly: "…We have too many trombone players—we need more musicians playing the trombone. Too many people put the focus no further than the bell of the instrument….the essence of what's musical is what's important, and I think that's what needs to be taught" (JD 4.1.15). This admirable philosophy might have been a more predominant theme across the participants had this issue been specifically included in the interview instrument.

Amount of Practice Time (Ph:SI:P:AT), whether per day or week, was cited 8 times with a distribution of 3/2/3. Drew recommended practicing for results more than for an actual amount of time, but conceded performance majors should spend more time

practicing than education majors (JD 1.1.1.5). Marcellus advocated a minimum of two hours a day outside of any ensembles (JM 1.1.1.1), and Olson suggested three hours a day to show significant progress (CO 1.1.1.1). All three participants recommended distributing the practice time as evenly as possible across the day, with at least one morning session for warm-ups or a routine. This is consistent with the literature as the most preferred use of practice time (Roberts, 2002).

A stress on Fundamentals in the Warm-up (Ph:WR:F) emerged as a theme 7 times among the participants, with a distribution of 1/3/3. "Fundamentals" in this context were defined as the building blocks of technical proficiency of the trombone, such as long tones, lip slurs, and tonguing exercises. A typical passage epitomizing this theme was put forth by Marcellus, who asserted that his recommended warm-up "includes a lot of the real basics…there's a lot to study about breathing and about rhythm and about connecting the various registers with lip slurs" (JM 1.3.1.2). This is characteristic of the Remington school of thought, and so was related directly to that theme as well.

Two other themes that were directly interrelated were the next most cited theme, Use of Technical Etude and Method Books (Ph:SI:EMB:T; cited 7 times with a distribution of 2/3/2) and the least cited theme, Use of Clef Etude and Method Books (Ph:SI:EMB:C; cited 3 times with a distribution of 1/0/2). Clef study referred to the traditional expectation of trombonists being able to read music written in bass, tenor, and alto clefs with ease. It was somewhat of an indication of importance that clef study warranted its own theme at all in this category; to be precise, a clef study etude book could just as easily be called a technical etude book. This ambiguity of terminology was

why these two themes, although presented separately in Figure 4, were linked together here.

The Bordogni/Rochut *Melodious Etudes* (1928) were cited as being the most widely used technical etude books by all three participants, which was consistent with the literature (Edwards, 2002). Simply called "the vocalises" by Marcellus (JM 1.2.3.2; JM 1.3.1.5), and labeled "the trombone player's bible" by Drew (JD 1.2.1.6), the use of the series was deemed integral by all three participants, typified in this comment by Drew: "I think all [trombone professors] use that, with good effect" (JD 1.2.1.6). Olson explained Volume 1 in particular was valuable in his teaching not only for legato style (CO 1.2.1.3), but also for clef study (CO 1.2.1.2), range practice (CO 1.2.2.2), endurance (CO 2.6.1.2), and even intonation by playing in intervals with students via different clefs (CO 2.3.3.2). This was another excellent example of how these teaching strategies are interrelated, especially when utilizing method and etude books. The Blazevich (1977) also was cited by all three participants for use in study of clef and style (JD 1.2.1.4; JM1.2.1.2; CO 1.2.1.1), and the Fink (1982) and Sauer (1977) books also were mentioned by Drew for clef study (JD 1.2.1.4). Also mentioned for technical studies were the Bitsch (1956), Blume (1962), Bozza (1956), Gaetke (1957), Kopprasch (1905), Kreutzer (1966), Masson (1953), Rode (1974), and Tyrell (1954) method and etude books.

An unexpected finding was the relative disregard for the Arban's method book (Arban, 1936). Olson made no mention of it, Marcellus specifically denounced it in favor of the Stacy (1916; JM 2.4.3.3), and Drew conceded using the book only if the student already owns it (JD 1.2.1.5). This finding was in specific contrast to the literature, where 62% of sampled trombone professors reported using the book regularly

(Edwards, 2002). Certainly, the reference to the Arban's as "the bible" (Pinson, 2005) was not justified by this finding. It was not clear why the method book was not favored by the participants; more study is needed on this particular point.

Linked to the previously described theme of Amount of Practice Time was the next most cited theme, Efficiency of Practice Time (Ph:SI:P:E; cited 6 times with a distribution of 5/1/0). Drew in particular emphasized practice efficiency over the actual amount of practice time: "…it's not being a slave to the clock so much as it's adding the goals and objectives and being able to work towards that efficiently" (JD 1.1.1.8). Marcellus corroborated this point: "I think when you practice two hours in a row sometimes you don't accomplish as much as you would in 30 minutes…" (JM 1.1.1.2) and affirmed the efficiency of practice is more important than the actual amount of time (JM 1.1.1.3).

The theme of Teaching to the Individual (Ph:CIC:TI) was cited 6 times, with a distribution of 5/0/1. A natural association with the theme of Issues for Specific Improvement was evident, especially in Drew's ideology: "…when a student has a specific issue, I have a specific routine that will deal directly with it" (JD 1.3.3.2). This emphasis on specifics for individual students was especially prevalent in the fundamental philosophy of Drew; Olson also acknowledged changing teaching strategies for different students depending on the student (CO 2.4.1.3).

Fair to High Use of Mouthpiece Buzzing (Ph:WR:MB:HU) was cited 5 times, with a distribution of 3/0/2. This commonality was limited to Drew and Olson; Marcellus did not emphasize it as much, although he did acknowledge "if [students] can solfege any piece [of music] on the mouthpiece, they're bound to be better at playing [it]"

(JM 1.3.2.2). Olson stressed it heavily: "For me, in 100% of the cases I could make a trombone player get a good sound right away by [buzzing]" (CO 1.3.2.2), whereas Drew suggested that "Certainly for everybody I think mouthpiece buzzing can be effective" (JD 1.3.2.2). As a solo theme, Drew also advocated free buzzing without the mouthpiece (JD 1.3.2.1), which is discussed further later in the chapter.

The final cited theme in Philosophy was the theme of Mental Practice: Visualization (cited 4 times with a distribution of 1/1/2). This theme was especially noteworthy for the disparity in the definition of the phrase "mental practice." Drew likened it to the field of athletics and noted visualization's effectiveness in dealing with performance anxiety (JD 1.1.2.1; JD 1.1.2.3). Marcellus described it as "go[ing] through your parts you have to practice, mentally" (JM 1.1.2.1). Olson illustrated mental practice's usefulness in coordinating slide positions for alternate positions and pitch nuances (CO 1.1.2.2; CO 1.1.2.3). This disparity was most probably due to the vagueness of the phrase itself; the question likely should have included a definition for the participants for clarity.

Commonalities: Themes Within Technique

The category of Technique contained the most specific and idiomatic issues in trombone performance. It was no surprise then that Technique had the most emergent themes from the data analysis. For the purposes of Figure 4, closely related themes were combined; an example was the most frequent theme in this category, Relation of Breathing/Air to Everything (T:B:RE), defined as the concept of breathing being integral to all aspects of teaching (cited 9 times with a distribution of 2/5/2). This theme was combined with Product-Based Breathing Strategies (T:B:PB; cited 3 times with a

distribution of 0/2/1) because of the close similarity between the themes (a total of 12 cited passages). The phrase "product-based" is used throughout this discussion of the analysis to refer to the stress of the physical sound in performance (the product) over the process by which it is learned. In other words, the ends justify the means within this ideology. Concepts concerning breathing were heavily stressed by all three participants.

Marcellus generalized air to such a point that "breathing is intertwined into the music" (JM 2.1.1.2), and Olson adamantly stated, "I address [breathing] every second of every lesson…it makes everything happen" (CO 2.1.1.1; CO 2.1.1.3). Drew stipulated that "from a technical or physical standpoint, nothing is as important as the proper use of air. It's 80%, at least, of what we do" (JD 2.1.1.1). This fundamental technical emphasis was hardly surprising given the dominant stature of breath-related literature (Frederickson, 1996; Meinz & Manning, 2001; Philips & Sehmann, 1990; Roberts, 2002). However, the integral nature of breathing and air in the teaching strategies of these successful trombone professors is important to remember when examining other more specific themes within Technique. A lesser cited theme within this same concept was the Openness of the Oral Cavity/Throat (T:B:OOC; cited 3 times with a distribution of 2/0/1), which was analogized by Drew as "the idea of a hot potato or hot soup in your mouth" (JD 2.1.1.2). The concept of openness Olson compared to a vocalist: "get the sinuses breathing…create a hollow cavity in [the student's] chest and use that as a resonance chamber" (CO 2.1.2.3). This relation of air to tone quality and resonance illustrated further the integral nature of breathing to the teaching strategies of these successful professors.

Student's Awareness of Intonation: Ear Training (T:I:SA:ET) was the second most cited theme with 11 coded passages distributed among the participants 4/5/2. This substantiated the charge that the trombone is the only instrument capable of always playing in tune, due to the ease of pitch alteration on the slide (Fonder, 1989; Martz, 1985). Marcellus stressed the need for students to hear the pitch before even beginning to play: "…there's a relationship between the mind and the pitch perception and the production of [the note]" (JM 1.3.2.3). Referring to tuning intervals even as close as a minor second, Olson stated, "…students can't stand to hear it out of tune once they learn how to hear [minor seconds] in tune…the minuteness…of slide change to make it sound horrible as compared to make it sound like a real minor second—is very slight" (CO 2.3.1.3). In this manner, the related themes of Understanding the Tendencies of the Instrument (T:I:TI; cited 6 times with a distribution of 2/1/3) and Intonation: Playing with Others (T:I:PO; cited 6 times with a distribution of 2/1/3) also played roles in intonation on the trombone. Drew presented the frequent example of students playing a 4th partial Bb, 5th partial D, and 6th partial F in the same unadjusted first position: "…if you've not been made aware of an intonation problem then the ear tends to accept and tolerate a lot of things" (JD 2.3.1.1).

One way students' awareness of intonation issues such as these were addressed was via the use of an electronic tuner. Fair to High Use of a Tuner (T:I:UT:HU) was cited 4 times with a distribution of 2/1/1. However, Drew noted that a tuner was "…not the best when it comes to playing in ensembles, but you get an idea of what you need to do to play in tune on this note" (JD 2.3.2.1). Olson described the tuner as a tool mostly for use on one's own: "I make [students] tune to me in lessons and tune to their tuner

when they weren't in lessons" (CO 2.3.1.5). This pragmatic emphasis of tuning to others when playing in ensembles while still knowing the tendencies of the trombone and being able to play the instrument in tune was supported by the literature as well (Baer, 1980; Gray, 1989; McDunn, 1966). Furthermore, this illustrated the difference between the pitch the tuner measures—the fundamental—and the pitch the human ear actually hears, which registers the harmonics and sonority of that fundamental as well (Seashore, 1967). These successful professors stressed intonation to their students in this context.

Another combination of themes was between two in endurance: Demands of Practice (T:EN:D; cited 5 times with a distribution of 3/1/1) and Time Spent Playing (T:EN:TSP; cited 4 times with a distribution of 1/1/2), combined for a total of 9 cited passages. Drew adequately summarized the concept: "Length of practice can be one means by which you increase endurance…[but] certainly the demands in the practice [are just as important]" (JD 2.6.3.2). Both Drew and Olson cited the same basic exercise of playing a Bordongi etude through, then again in tenor clef, then again down an octave, then again down an octave in tenor clef. Repeated with two or three more Bordogni etudes, and "your chops are just about shot…but it's a good shot…it was slowly building up raw strength" (CO 2.6.1.2; CO 2.6.1.3). According to the data, the actual time of practice and the demands within that practice time must be balanced for increasing endurance most effectively.

Within the issue of range and register development, the themes of Muscular Development (T:RR:MD; cited 4 times with a distribution of 3/0/1) and Embouchure Changes (T:RR:EC; cited 5 times with a distribution of 4/0/1) were combined in Figure 4 for a total of 9 cited passages. Drew emphasized using scales and arpeggios to ensure

"the shifting [of the embouchure] will be done inside the mouthpiece" (JD 2.6.1.6), as opposed to improper support such as bunching up the chin. Olson likened range development to body building: "You work the muscles, destroy the old fibers, then rest them until the new fibers grow in much stronger than the old ones" (CO 2.6.1.3). Drew also stressed the importance of resting as much as you play: "…if you're not careful, a student who really wants to cram upper register exercises can wind up playing not nearly as securely in the upper register as they could before…you have to talk about the balance and how muscles need their rest" (JD 2.6.1.12). Patience and the slow pace of the correct process were found to be key factors in the analysis as well.

Bridging this concept of range and register development with the integral significance of breathing was the theme of the Relation to Air/Breathing in Range and Register (T:RR:RA), which was cited 7 times with a distribution of 4/1/2. Olson described the benefits of practicing in the lower register: "…when you work on your low range you are also working on your high range because you're working on airflow" (CO 2.6.1.5). Drew agreed with the notion of airflow's role in extreme registers: "In the upper register the air's going to move much faster, but you're going to use less of it" (JD 2.6.1.1). This further illustrates the philosophy of breathing's integral function in all aspects of trombone performance.

Issues within articulation on the trombone was paradoxical among the participants. The themes of Product-Based Ideology in articulation (T:A:PB; cited 4 times with a distribution of 1/1/2) and Little to No Use of Syllabic Concepts (T:A:S:LU; cited 4 times with a distribution of 2/1/1) were combined because of their similarity of focus: "I teach articulation until it sounds right" (CO 2.4.1.1), "I don't have an agenda in

teaching [syllabic articulation]…I don't necessarily say an awful lot about the syllables themselves" (JD 2.4.1.1; JD 2.4.1.6), "I use a little bit of the syllables" (JM 2.4.1.1). Yet, despite this seemingly casual "whatever makes them sound right" (CO 2.4.1.2) mindset, each participant also cited specific passages in the theme of Specific Concepts and Exercises in articulation (T:A:SC; cited 6 times with a distribution of 2/3/1): "…some students need to really back off the tongue and make more of an 'oo' or 'loo' or a 'nah' or some kind of a syllable to make it sound right" (CO 2.4.2.1), "I'll talk to the student about how the 'too' and 'koo' alternate from the front and the back" (JD 2.4.2.1), "…to use long tones and to begin to use 'tee'" (JM 2.4.2.2). Although apparently at odds, the difference here was really a technicality, aptly summarized by Drew: "I think we all play (emphasis) with syllables. And to some extent, I'll teach them" (JD 2.4.1.1). In other words, these professors likely would only teach articulations syllabically if the student was having trouble with the articulation—if the product (the sound) was not correct. Otherwise, addressing the issue may compound other issues unnecessarily. This teaching strategy of avoiding nonessential issues in students' playing was noteworthy.

The theme of Specific Concepts and Exercises for slide technique (T:ST:SC) was cited 8 times with a distribution of 3/2/3. Closely related, although less cited, was the theme of Practicality in slide technique (T:ST:P; cited 3 times with a distribution of 1/0/2). Similar to issues within articulation, the main ideology within these themes was a product-oriented approach. Drew typified teaching strategies for proper slide technique as "something that's a 'do' approach, not so much a 'think' approach. It pretty much takes care of itself for students after that" (JD 2.2.1.4). However, there was some discrepancy about the actual mechanics of "proper" slide technique. For his students,

Drew "encourages the kind of movement where you're promoting more flexibility in the wrist" (JD 2.2.1.3), opposed to Olson's view of slide technique as "…more of an arm motion than a wrist motion. I don't like…wrist sloppiness…it leads to inaccuracy as far as pitch goes" (CO 2.2.1.3; CO 2.2.1.4). Marcellus seemed to straddle the issue: "…the wrist is involved in the process, and…the shoulder sometimes gets to be a little too involved in the process" (JM 2.2.1.5). Although there was no consensus among the participants on the specific mechanics of slide technique, there was a consensus that "the most important thing about slide technique is for students to be aware of what goes on with the right arm" (JM 2.2.1.4).

Three overall themes emerged in issues within sound and tone quality. One theme was a combination of two coded themes for a total of 8 cited passages: Listening to Recordings (T:STQ:L:R; cited 3 times with a distribution of 2/1/0) and its parent theme, Listening (T:STQ:L; cited 5 times with a distribution of 3/2/0). This combined theme also was directly related to the theme of Student Awareness in sound and tone quality (T:STQ:SA; 4 cited passages with a distribution of 0/2/2). Both Drew and Marcellus agreed that listening to as much good trombone playing as possible was paramount in importance to developing a good sound concept for students: "Listen, listen, listen!...because you absorb the influences of what you hear. There's nothing that's a shortcut to that" (JD 2.5.1.4), "…sound is your best asset…emulate and listen to other players, and you figure out, 'well, what makes a good sound'" (JM 2.5.1.1). Olson's view of developing sound and tone quality was slightly different, although not entirely unrelated: "I demonstrate constantly…my students listen to recordings, but it's not good enough…you gotta have somebody just in your face all the time [modeling sound for the

student]...it's got to be there on a day to day basis" (CO 2.5.1.2; CO 2.5.2.1; CO 2.5.2.2). Such ideas typified the theme of Teacher Modeling in the context of the lesson (T:STQ:M; cited 6 times with a distribution of 2/0/4). Sound and tone quality might have been best summarized again by Drew: "I don't know if we teach (emphasis) [sound] concept so much as we help foster its development" (JD 2.5.1.1). The student's more personal role became a more integral part than the teacher in this respect.

The final issue within the Technique category dealt with embouchure. Three themes emerged within this issue: concerns with Specific Muscles (T:EM:SM; cited 5 times with a distribution of 4/0/1), an emphasis on No Tongue for Initial Attack (T:EM:NT; cited 5 times with a distribution of 3/2/0), and a Product-Based Ideology for embouchure (T:EM:PB; cited 2 times with a distribution of 0/1/1). Drew advocated having a student simply "say 'M' in the mirror…[which] pretty much takes care of their embouchure" (JD 2.6.2.2), which typifies the Specific Muscles theme. Marcellus contended that "the embouchure is a direct result of the way you blow…when you use no attack, it really helps…get the foundation for an embouchure that works" (JM 2.6.2.1; 1.3.1.4), which was a characteristic example of the No Tongue for Initial Attack Theme. Olson expressed a high regard for the solid embouchure of Bill Watrous, but acknowledged some students' embouchures could be successful and not be as solid: "…it's a philosophy of go for a model, but accept what works" (CO 2.6.2.2); this belief typified the Product-Based Ideology theme. In general, all three participants stated that embouchure was more of a personal issue that must be approached on an individual basis.

Commonalities: Themes Within Musicianship

As stated earlier, the category of Musicianship dealt least directly with trombone-related issues. More general musical concepts were included in this category. Nevertheless, professors who teach trombone also teach music; therefore, these more general issues do appear in the context of the private lesson. Teaching strategies must be developed accordingly to address these issues.

The most strongly cited theme in this category was Fair to High Use of a Metronome (M:R:UM:HU), with 7 cited passages and a distribution of 3/1/3. This was the second theme denoted with an asterisk in Figure 4 as an anomaly because of the strength of the data. Strong statements such as "I use the metronome very much in the lessons and in the practice room" (JM 3.1.2.1), and "…always be metronome perfect" (CO 3.1.2.2) characterized this theme. More definitive answers to the actual interview question of "Do you stress the use of a metronome in your teaching?" were simply "Absolutely, absolutely" (JD 3.1.2.1), and a surprised "Oh, yes. (matter-of-fact) Oh my, yes" (CO 3.1.2.1). These responses, although brief, were rich data from the point of view of *chronemic* and *paralinguistic* modes of communication (Fontana & Frey, 2005). Such responses were important in a more fundamental manner as well: the participants were not only in complete agreement on the theme, but were even so much so that it seemed almost superfluous to mention it. This assumption of the metronome as an essential tool for any musician was echoed in the literature (Roberts, 2002).

Unexpectedly, the theme that was actually most frequently cited was the High Importance of Playing Varying Styles for Performers (M:VS:IP:H; cited 8 times with a distribution of 3/3/2). This was typified by such statements as "…to the extent that

you're versatile, it's extremely important. All things being equal, having more to offer is always better" (JD 3.4.2.1), but also limited by such assertions as "On the other hand, people that really make their mark on this world and whose names are known by all who play that instrument…do one thing and they have a genius at it, and they don't try to dabble in everything" (JD 3.4.2.2). Marcellus pointed out that varying styles may be important, but all styles shared the theme of Common Ground (M:VS:CG; cited 3 times with a distribution of 0/2/1)—the trombone itself: "I try basically to have all my students understand how to operate the trombone at its most efficient level. And then in that process, they're able to use that same efficiency in playing, no matter what style it is" (JM 3.4.1.1).

In contrast to this emphasis on versatility of styles was the theme of Little to No Emphasis in Teaching Approach with Varying Styles (M:VS:TA:LE; cited 2 times with a distribution of 1/0/1). Although Marcellus did claim to use some software such as Band-in-a-Box for teaching improvisation (JM 1.2.3.3), there was no other mention of any of the three participants actually utilizing teaching strategies to demonstrate the importance of playing varying styles. Drew confessed, "…there's people [in the school of music] that teach jazz, so I don't deal with that—and I'm happily not dealing with that, frankly" (JD 3.4.1.1), and Olson confided that he doesn't "do jazz in lessons because that's a style I don't understand enough of" (CO 3.4.1.1). Marcellus found the common ground between all styles, and when it came to the specific stylistic interests of his students, "I treat them all the same, trying to help them realize how to make the trombone work easily" (JM 3.4.1.3). Presumably, these successful professors equated stylistic versatility with playing both classical and jazz styles, and left teaching jazz style to the professors

who were on faculty specifically to teach it. This was defensible and only logical; however, a key reality was ignored: jazz is not the only other style in which professional trombonists must perform. This is revisited in more detail in Chapter 5.

The theme of Playing in Ensembles for Using Technique in Context (M:EP:TIC; cited 7 times with a distribution of 1/4/2) was closely related to the theme of Playing in Ensembles for Familiarity with Literature (M:EP:LF; cited 3 times with a distribution of 1/0/2). Both themes were based in practicality, because the goal of studying trombone in the private lesson is to be able to put the concepts one has learned into the "real world"—the ensemble. There are very few professional trombonists whose career is that of a soloist; the great majority perform in an ensemble to make a living (Tanner, 1970). Marcellus aptly summarized the importance of ensemble playing: "…all of these experiences with the ensembles is the basic training of what [students] need to do once they're leaving the school…they're going to play with ensembles, and they've got to learn how to work and adapt with the people that are in the group" (JM 3.3.1.3). Drew corroborated that ensemble playing is "a critical facet of a student's experience" (JD 3.3.1.1) whereas Olson described the specific skills learned as "every ensemble skill; particularly pitch, balance, blend, and resonance" (CO 3.3.1.1). Although these facets were learned outside of the lesson, these successful professors realized the onus was upon them to encourage their students to perform in ensembles regularly.

Cited 6 times with a particularly even distribution of 2/2/2, Subdivision and Internalization of the Beat/Pulse (M:R:S) was an important theme within the issue of rhythm. Marcellus advocated students "be able to become very metronomic in your playing" (JM 3.1.2.2), and Olson recommended always to "internalize the rhythm and

really be clear with it" (CO 3.1.2.4). Drew denoted specific exercises within the related theme of Specific Concepts and Exercise in rhythm (M:R:SC; cited 4 times with a distribution of 1/1/2): "[the student will] start with a measure of 4/4 time, [with] four quarter notes. Then they'll move that to four beats of eighth notes, then four beats of triplets, four beats of sixteenths, four of quintuplets, and then four of sextuplets, and then come back…that gives the student practice just on isolating nothing but rhythm [and] that manipulation of subdivision" (JD 3.1.1.4). Marcellus noted the practicality of stressing rhythm: "[in] auditions nowadays for orchestras [it is] the first two things—rhythm and intonation—that disqualify everybody" (JM 3.1.1.1). This was a prime example of why rhythm is an essential part of every trombone player's learning.

Issues within sightreading were divided into two separate themes: Specific Concepts and Exercises (M:SR:SC; cited 6 times with a distribution of 3/2/1), and Playing With the Student in lessons, usually duets (M:SR:PWS; cited 3 times with a distribution of 1/1/1). Although not particularly stressed by any of the participants, both Drew and Marcellus acknowledged sightreading duets with their students as important in their teaching (JD 3.2.1.2; JM 3.2.1.1). Olson went a step further, and described a specific technique for developing students' sightreading ability: "I take a three by five note card…and cover the first two beats—half of this measure…I follow along and cover up the two beats that they're playing and slide that card along which forces them to look ahead" (CO 3.2.1.2). Olson also advocated this excellent exercise for students to utilize in their own practice with "a buddy…it helps [the buddy's] sightreading too because they have to be able to read what the person is playing and stay with it" (CO 3.2.1.3).

An unexpected emergent theme in the category of Musicianship was the Student's Awareness of Primary and Secondary Beats in the music (M:R:APSB; cited 4 times with a distribution of 0/2/2). Olson sheepishly recalled not being familiar with the concept when he took a lesson as a graduate student with Kleinhammer: "He said, 'you know what rhythmic articulation is?' (laughs) Boy was I stuck…really, really embarrassing" (CO 3.1.2.6). He went on to describe the concept as "you stress beat one the most, beat three the second most, beat four the third most, you stress beat two less…he stressed that so much and it was so effective that rhythmic articulation I've used [it] everywhere" (CO 3.1.2.6). Marcellus concurred: "…the concept of primary beat and secondary beat is a real important one, I feel, with rhythm" (JM 3.1.1.2). This general music principle was not found widely in the literature; this made the finding more interesting in the trombone pedagogical community.

Differences in Teaching Strategies

Although the commonalities in teaching strategies were the main area of importance for the purposes of the research, differences among the participants were noteworthy in a different manner. These differences might help to identify areas for future research, or implications for trombone pedagogy in general. Although such speculation is reserved for Chapter 5, the three major differences found from the analysis are identified here.

Possibly the most compelling difference among the participants was within the theme of Technology/Software Used (Ph:SI:TS). Drew and Olson denied using any sort of technology in their teaching strategies (coded theme of Little to No Use, Ph:SI:TS:LU; cited 2 times with a distribution of 1/0/1). Drew conceded that likely some of this

technology "are very good tools, I just don't happen to use them in my teaching" (JD 1.2.3.1). In contrast, Marcellus claimed a high use of technology in his teaching (a solo theme of Fair to High Use, Ph:SI:TS:HU; cited 4 times with a distribution of 0/4/0): "I find Smart Music particularly helpful…a student can begin to learn the piano part [to a solo] without wasting the time of a piano player in a first rehearsal…even with the [Bordogni] vocalises to be able to have the student match the pitch and intonation of the tempered scale of the piano…Smart Music is very, very helpful" (JM 1.2.3.1; JM 1.2.3.2). He went on to denote that "Smart Music is the best tuner that I've ever used…the students can really see graphically how (laughing while speaking) far they are off the pitch" (JM 2.5.1.6). What made this difference in teaching strategies among the participants all the more striking was that Marcellus had been teaching longer than either Drew or Olson—exactly the opposite of what one might expect in regard to use of technology.

The second difference among teaching strategies was not as emphatic as Technology, but still was noteworthy. The theme of Use of Alternate Positions (T:ST:AP) was divided into Fair to High Use (T:ST:AP:HU; cited 3 times with a distribution of 1/2/0) and Little to No Use (T:ST:AP:LU; cited 2 times with a distribution of 0/0/2). Drew and Marcellus advocated using alternate positions for ease in slide movement (JD 2.2.1.5; JM 2.2.1.1), and even for development of intonation (JM 2.2.1.2), but Olson specifically avoided alternate positions "unless it produces an expressive phrase…I never use alternate positions for ease…only for effect" (CO 2.2.1.6; CO 2.2.1.7). This was an example of the debate between the notion of ease of movement on the trombone and the notion of pure tone on the trombone in true positions (Bough,

2000). There is no clear correct way because both sides of the argument have points in their favor.

The last main difference noted between the participants' teaching strategies was regarding the concept of sound and tone quality. The themes of Listening and Teacher Modeling in the context of the lesson already have been described earlier in the chapter, but it is worthwhile to expound upon the subtle but definite distinction made by Olson: "…my sound concept was taught through demonstration…my students listen to recordings, but it's not enough" (CO 2.5.1.3; CO 2.5.2.1). This was in contrast to Drew and Marcellus, who both simply advocated listening to as much good trombone playing as possible. Drew also mentioned modeling for his students (JD 2.5.1.2; JD 2.5.1.4), but made no differentiation between it and listening to recordings or live performances. Olson's insistence on the actual production of the tone being a daily physical presence for the student was interesting to note, but somewhat difficult to understand. Further research is needed to clarify this specific concept.

Solo Themes

Several solo themes were identified and left out of the analysis and Figure 4 because such themes did not represent commonalities. In fact, this study's definition of a solo theme as one which was cited three or less times and by only one out of the three participants essentially characterizes a solo theme as an individual point of view. However, considering the distinguished status of the participants, such opinions were important in themselves, and so some were included in the preceding discussion for emphasis or contrast. All solo themes, including those already mentioned, are identified here.

Drew. Solo themes specific to Drew included: Model versus Lecture (Ph:HI:ML, cited 3 times): "…playing is doing, playing isn't thinking about doing" (JD 2.1.2.4); Student's Standards (Ph:HI:SS; cited 3 times): "If you're willing to accept [a poor] performance, then where do you draw the line? When is it not acceptable" (JD 4.1.10); Mental Practice, Other Resources (Ph:SI:P:M:R; cited 2 times): "…certainly *The Inner Game of Tennis* I think is a standard point of reference for anybody who is in the performing arena" (JD 1.1.2.4); Patience in Practicing (Ph:SI:P:P; cited 2 times): "…the student has to find an approach that keeps them [progressing] without frustrating them" (JD 2.6.1.11); Free Buzzing (Ph:WR:FB; cited 2 times): "…although there isn't a direct correlation to playing like there is with mouthpiece buzzing, I think that [free buzzing] for a lot of people is valuable and useful" (JD 1.3.2.2); Tongue Placement in articulation (T:A:TP; cited 3 times): "…we may go through and talk about the specifics of where the tongue placement needs to be [for proper articulation]" (JD 2.4.1.3); Use of a Breathing Tube (T:B:OOC:BT; cited 3 times): "I think the use of a breathing tube is a absolutely terrific way to get the student to do the right thing without having to be distracted by analysis" (JD 2.1.1.7); and Syllabic Concepts in range and register development (T:RR:S; cited 3 times): "If necessary, we'll talk about the 'ee' of the tongue [in the upper register]" (JD 2.6.1.2).

Marcellus. Solo themes cited by Marcellus were: Relation of Rhythm to Marching Band (M:R:RMB; cited one time): "…some students that don't play in marching band…sometimes have more problems with rhythm" (JM 3.1.1.3); Mental Practice, Score/Piano Study (Ph:SI:P:M:SP; cited 1 time): "It's very good to spend some time with a score or with a piano…" (JM 1.1.2.4); Technology/Software Use, Fair to

High Use (Ph:SI:TS:HU; cited 4 times): "I use Smart Music…Band-in-a-Box also..[and] some of the other play-a-longs of the Schwartz vocalises—the Bordogni" (JM 1.2.3.1; JM 1.2.3.3); Volume Considerations in Student's Awareness of intonation issues (T:I:SA:VC; cited 1 time): "…when you play louder, it's much harder to control pitch…play it very softly and you'll probably play it in tune" (JM 2.3.1.4); and Use of Partials for range and register development (T:RR:UP; cited 2 times): "…glissandoing into each harmonic series and gliding upward. Then switch harmonic series but play the same notes in the alternate positions" (JM 2.6.1.2; JM 2.6.1.3).

Olson. Solo themes particular to Olson were: Little to No Use of Alternate Positions (T:ST:AP:LU; cited 2 times): "…for tone purposes stay out of alternate positions" (CO 2.2.1.7); Mouthpiece Buzzing for development of sound and tone quality (T:STQ:MB; cited 2 times): "…the kind of sound on the mouthpiece is very important. It needs to be somewhat fuzzy, somewhat airy…if it's clear, it's tight, and it will train you to have a tight sound on the horn and that's the worst possible thing you can do" (CO 1.3.2.5); and Physical Consideration for sound and tone quality (T:STQ:PC; cited 1 time): "I found real success in having students create a hollow cavity in their chest and use that as a resonance chamber…it cleared up a lot of problems because basically what it did was loosen up the upper chest and lower throat" (CO 2.1.2.5).

Summary

In this chapter, the analysis of the data was presented, described, and categorized. A total of 79 emergent themes were found via the analysis, with 375 total cited passages, 28 solo themes, and 47 solo cited passages among the three participants. Table 5 presented the frequency distribution among the participants, and Table 6 denoted the

frequency totals of the analysis. Figures 1, 2, and 3 presented the emergent themes within pedagogical category. Figure 4 delineated the commonalities found, including all pertinent emergent themes. Commonalities and differences among the participants' teaching strategies were discussed, with relationships among themes denoted, to be examined further in Chapter 5. Solo themes with descriptive passages also were identified.

The emergent themes often were consistent with the extant literature, and few unexpected findings were noted. However, there were some unanticipated findings, along with noteworthy commonalities and overwhelming similarities that warrant further discussion. Included with this discussion in Chapter 5, a theory of an underlying philosophy of these three successful trombone professors' teaching strategies is presented. It is hoped this theory will help to broaden the understanding of the process of how these successful professors teach this complicated instrument.

Chapter 5

Summary of Findings, Implications, and Conclusions

This chapter summarizes each major result, interprets the findings in relation to the research question, and compares the results to the literature. Based upon the data analysis, a theory of an underlying pedagogical philosophy among successful trombone professors is proposed. Limitations of the study are revisited and discussed. The implications of the findings are discussed, and recommendations for future research are suggested.

Summary and Interpretation of Significant Findings

Much of the analysis serves to make the obvious more obvious (Patton, 2002); that is, essentially, most of the findings, supported by the literature, support what is already known. In the context of the nature of the research participants, however, such support from these findings is important in itself. These successful professors confirmed what was found in the literature to a great extent, which helps to verify the general pool of knowledge in the trombone pedagogical community. This is also important because it affirms this common knowledge in the literature as current and relevant to today's trombone teachers. In this way every result is significant to some degree.

However, there are findings that either do not corroborate the literature or are substantial for other reasons that warrant further discussion. One such finding is the high number of cited passages in the Philosophy category. Despite only 8 scripted interview questions, there were 167 total cited passages within this category, compared to the

category of Technique, with 14 scripted interview questions and only 154 total cited passages. The relative broadness of the Philosophy category is partly accountable for this because the participants were able to be more specific within the scope of the interview questions. But the disposition of the category and the questions within it could not wholly account for this phenomenon. The most likely cause of questions regarding issues in Philosophy yielding more themes was simply that there were more data to be yielded within that category; in other words, these successful professors had a serious regard for philosophical issues.

Certainly, the frequency counts of the cited passages within the Philosophy category support this inference, and the nature of the data itself stress the importance of these issues in the participants' teaching strategies. Drew in particular was insistent upon the crucial role of grounding trombone performance in a philosophy of concepts, principles, and goals—"a musical value system which determines the efficiency of our practice and the quality of the experience" (JD 4.1.2; JD 4.1.4). This was such an essential component of Drew's teaching that 20 coded passages were collected *after* the end of the scripted interview in response to "Is there anything further you would like to address?" Evidently, Drew felt so strongly about this category that he felt it should be discussed even more thoroughly than had been the case within the context of the scripted interview questions.

Marcellus and Olson, although not as emphatic as Drew regarding philosophical concepts, stressed keeping a broad mentality when approaching playing the trombone. When asked why he combined teaching strategies while using method books, Marcellus pointedly combined specific technical issues together: "Well, all music comes from the

same way. (chuckles) Music is made up of melodies which is scales, arpeggios, and the various articulations which go along with that to be distinct…etudes are…a study in the music" (JM 1.2.2.2; JM 1.2.2.1). Olson also emphasized the importance of combining concepts to maintain a broader perspective, "Ultimately, when [students] play music…they have to combine all the different aspects of playing at once: articulation, and clef reading, and musicianship, and style. So it's always best to incorporate all those things at one time" (CO 1.2.2.4). This stress on the student's overall musical outlook seems appropriate and sensible, and is very likely one of the main reasons these professors are so successful.

The relative disuse of the Arban's book (Arban, 1936) is in specific contrast to the literature, whereby in one study it was cited as the fourth most utilized method book (Edwards, 2002). Why this finding emerged is not clear. Marcellus conceded after a specific probing question that "I use it, but not to a great extent" (JM 2.4.3.3). He specifically noted the Arban's primary use as for developing sightreading: "…if you want to work on sightreading, go through these pieces and start to turn the pages on them" (JM 3.2.1.4). Drew made reference to the book almost as an afterthought (JD 1.2.1.5), and Olson left it off his recommended list of etude and method books. This is in spite of Olson's professed admiration for the pedagogue Kleinhammer (CO 1.3.1.7; CO 3.1.2.5), who has referred to the Arban's as "the bible" (Pinson, 2005)! But there in no conclusive data to say why this discrepancy exists. Perhaps the best available indicator comes from Marcellus: "…I've found that the early basic stuff in the Charles Stacy [method book] makes it even more obvious for trombone players what they need to do…that [the Stacy] ends up being kind of the equivalent of what the Arban's book was for trumpet players"

(JM 2.4.3.3; JM 1.2.2.3). This reference to the Arban's as more of a trumpet book is justifiable—Arban was, in fact, a cornetist. The book was edited by Mantia and Randall for use by low brass players (Mantia was a euphonium player and Randall a trombonist), but the main body of the method book is almost exactly the same (Arban, 1936). Further supporting this inference, a recent re-editing of the book was completed by more modern pedagogues Alessi and Bowman (2000), who updated much of the original text and some of the exercises. The apparent need for this newer edition may have been to make the book more relevant to low brass players (Seidel, 2006). Perhaps the newer edition may find greater favor among the participants in this study after a few more years.

Use of software and technology is the only major difference among the participants. Drew and Olson simply stated complete disuse of any type of technology in their teaching, although presumably this excludes the use of such logistical tools as word processing or email software. Marcellus alone claimed a high use of technology in his teaching, citing an extensive use of Smart Music, and an occasional use of Band-in-a-Box. Although it might be logical to infer that Marcellus is most current in his teaching practices of the three participants, any such inference should be made only warily. For it should be noted that the use of technology is simply a teaching *tool*, and not an actual teaching *strategy*. It is true that tools such as Smart Music can help facilitate teaching strategies such as those regarding intonation development (JM 2.5.1.6), but the opposite also can be true: if the professor is not comfortable with using Smart Music, a teaching strategy might actually be hindered by the use of that particular tool. This is also true of teaching tools such as Drew's 4-inch length of PVC pipe for breathing (JD 2.1.1.8), or Olson's 3 by 5 note card for sightreading (CO 3.2.1.2). But there are other strategies and

other tools to teach correct breathing, sightreading, or intonation. So, perhaps the most appropriate inference one might draw from this emergent difference among the participants is simply that more recently developed teaching tools such as technology often are less utilized by those who are accustomed to using more traditional methods (Bauer, Reese, & McAllister, 2004). However, it is a notable detail that Marcellus defies this inference, having taught trombone for more than 28 years (the longest of the three participants). It is likely that he is simply an exception to this assumption.

The teaching strategy of avoiding non-essential issues in students' playing is another unexpected finding, and possibly a very important one. This finding came to light within themes in articulation issues, in the category of Technique. Although all three participants minimized actually teaching articulation syllabically, each gave specific examples of the use of syllables while articulating on the trombone. Drew characterized the subtle difference: "I think we all play (emphasis) with syllables. And to some extent, I'll teach them" (JD 2.4.2.2). To avoid the risk of making the act of articulation seem overly complicated to the student, these professors seemed to stress the importance of the tangible product—the actual sound of the articulation when it is played on the trombone. This emphasis on product rather than process was a meta-theme; that is, it was supported by several other related emergent themes. This meta-theme is discussed at greater lengths later in the chapter.

An apparent paradox emerged in the analysis within themes of the value of varying styles. Although all three participants acknowledged the importance of students being able to perform in various styles for use in the professional world, there was little emphasis on actual teaching strategies of those varying styles. The assumption was that

to be versatile one should be comfortable with only the styles of classical and jazz, and as Olson summed up jazz style: "I don't understand enough of [it]" (CO 3.4.1.1). This classical training emphasis is fairly typical within the field of trombone pedagogy (Roberts, 2002), as is the dichotomy of jazz and classical being the only two styles with which trombonists should be familiar (Ervin, 1990). Yet, some professional trombonists have successful careers in other styles: commercial, pop, rock, and the many genres of Latino music, to name a few (Bailey, et al., 1992). Why were these styles not mentioned or even alluded to by the participants? The most obvious answer is that traditionally these styles have not been a part of the trombone pedagogy curriculum. Even jazz only has been included in a more reluctant way in the last 40 or so years (Lenthe & Whigham, 1998), and then usually by a jazz specialist on the faculty. Trombone professors who teach both jazz and classical styles are few in number, and even then, usually the expectations of the traditional classically-based higher education curriculum will dictate an emphasis on that particular style (Kazik, 2001).

Notwithstanding, it is generally acknowledged in the trombone pedagogical community that stylistic versatility is important (Roberts, 2002). The participants in this study—who do have a sincere interest in their students' musical development and future careers—are simply teaching what they know. The standards of these successful professors are so high that short of becoming proficient themselves at these varying styles, they would not feel proper in teaching them to students. So they teach each individual student where to look to learn these interests, and endeavor to facilitate that learning along the way: "I don't specifically try to pinpoint anybody, but I try to say 'where's your interest going; what do you plan on doing?'" (JM 3.4.1.3). This

philosophy of adaptable teaching strategies for the specific needs of an individual student is a second meta-theme, supported by other emergent themes.

A final unexpected finding is the emergence of the student's awareness of primary and secondary beats within the context of the music, also referred to as "rhythmic articulation" (CO 3.1.2.6). Although this concept is well documented in more general subjects such as music theory (Benward, 2002), the unsolicited emphasis it received by the participants was noteworthy. This link to such an integral concept of overall musicality is another indicator of the importance stressed by all three participants to make the goal of their trombone-specific teaching strategies be the music itself: "rhythmic articulation…organizes musical phrases into something that human beings can really latch on to and identify with" (CO 3.1.2.7); "I think the practicality of just performing is…what I focus on" (JM 1.1.2.3); "…I think the student needs to realize that everything is in the service of music, and they need to practice accordingly" (JD 1.2.2.3). In teaching this ideology, a third meta-theme of raising the student's awareness surfaced, supported by several other emergent themes.

Interaction of Emergent Meta-Themes

These three meta-themes, which have been labeled Product Over Process, Individualized Teaching Approaches, and Raising Student Awareness of Issues, were extrapolated from the commonalities of themes among all three participants. The first meta-theme of Product Over Process emerged from themes with an emphasis on the result of the performance rather than the means by which it is taught. These themes were: Product-Based Ideology in articulation (T:A:PB; cited 4 times), Little to No Use of Syllabic Concepts in articulation (T:A:S:LU; cited 4 times), Music versus Lecture

(Ph:CIC:ML; cited 3 times), Product-Based Breathing Strategies (T:B:PB; cited 3 times), Practicality in Slide Technique (T:ST:P; cited 3 times), and Product-Based Ideology for embouchure (T:EN:PB; cited 2 times). These themes were linked by the theme of Multi-Conceptual Teaching Strategies (Ph:CIC:MTS; cited 18 times), which connected many of these individual themes together within the data and provided a sort of thematic adhesive inside this meta-theme. Assertions such as "…it's a philosophy of go for a model, but accept what works" (CO 2.6.2.2), "…it's really difficult to say I have a specific way [to teach breathing]…when they're on the instrument…the breathing is intertwined into the music" (JM 2.1.1.2), and "…I tend to think in terms of modeling, in terms of doing, and not so much in terms of talking" (JD 2.1.2.3), typified the meta-theme of Product Over Process.

The meta-theme of Individualized Teaching Approaches emerged from themes that stressed adaptable teaching strategies, depending upon the needs of the individual student. These themes were: Issues for Specific Improvement within the warm-up (Ph:WR:II; cited 9 times), High Importance of Playing Varying Styles for Performers (M:VS:IP:H; cited 8 times), Teaching to the Individual (Ph:CIC:TI; cited 6 times), and Student's Standards (Ph:HI:SS; cited 3 times). Statements that characterized this meta-theme were: "I try to give [students] enough of a feeling about a warm-up routine that it's giving them some tools to use, but then they will develop on their own and learn on their own what they really need to do" (JM 1.3.3.2), "When it comes to technical books…it depends on the student—where they are, what their ability level is, and to some extent, what they have" (JD 1.2.1.7), and "…some students need to tongue real hard in

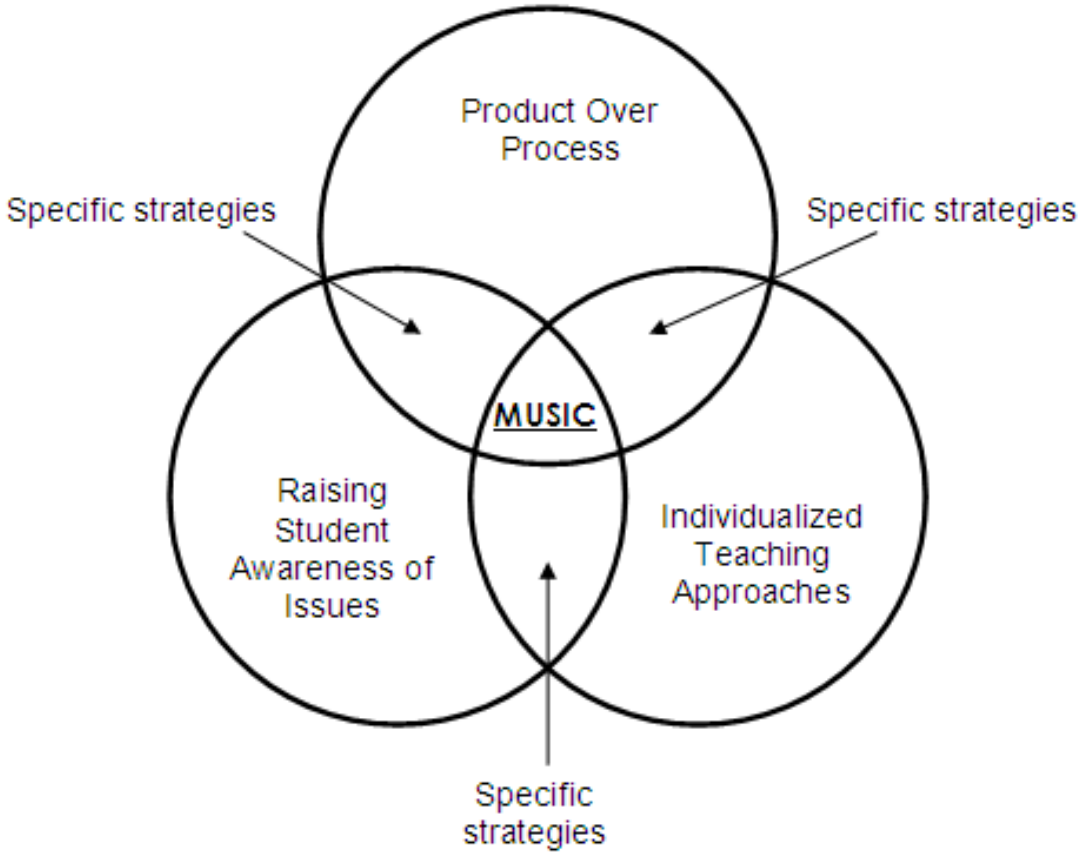
legato, and some students need to back off the tongue…always, always listen for the sound, always listen for the product" (CO 2.4.2.1).

The final meta-theme of Raising Student Awareness of Issues emerged from themes that emphasized the educational necessity of identifying areas for improvement within a student's trombone playing, heightening the discernment abilities of these issues with the student, and presenting concepts to address those weaknesses. These themes were: Student's Awareness of Intonation: Ear Training (T:I:SA:ET; cited 11 times), Understanding the Tendencies of the Instrument (T:I:TI; cited 6 times), Student's Awareness of sound and tone quality (T:STQ:SA; cited 4 times), Student's Awareness of Primary and Secondary Beats (M:R:APSB; cited 4 times), Patience in Practicing (Ph:SI:P:P; cited 2 times), and Volume Considerations in Student's Awareness of intonation issues (T:I:SA:VC; cited one time). Typical assertions within this meta-theme were: "…intonation to some extent is a learned phenomenon, and if you've not been made aware of an intonation problem then the ear tends to accept and tolerate a lot of things" (JD 2.3.1.1), "I make [students] buzz [the music on their mouthpieces] in brass choir situations, and the sound of the group is instantly clarified, focused, and resonant…and in every case [the students] are just shocked out of their mind" (CO 1.3.2.7), and "I tell [students] about intonation…so they're aware of the two different kinds of tuning we have to deal with…[and] I'll point out sometimes in the lesson with various intervals together for them to hear the beats, so we'll develop an intonation awareness in that respect too" (JM 2.3.3.1; JM 2.3.3.2).

These three meta-themes, which emerged from this examination of individual emergent themes found in the analysis and a close scrutiny of the related data, seem to be

interrelated; this suggests an underlying teaching philosophy among successful trombone professors. Moreover, it appears that there is a common purpose and objective behind this underlying teaching philosophy, which permeates all aspects of these professors' teaching: the quality of the student's musical creation. Figure 5 shows the interaction of the three meta-themes as a model for successful trombone teaching.

Figure 5.
Interaction of Meta-Themes



Within the overlap of each distinct meta-theme, specific teaching strategies to address specific issues are devised. When these explicit teaching strategies are adapted to

the learning needs of the student, with an aim of raising the student's awareness of the issue and how to correct it, and an overall emphasis on the product and not the process, all three meta-themes overlap to achieve the musical goal. This goal can be as simple as a single long tone, or as complex as a concerto; it can be as basic as a student's understanding of the slight difference in the length of the slide needed to play different notes in the same position in tune, or as multifaceted as a student's comprehension of how the trombone and respiratory system work together; it can be as plain as opening the oral cavity to darken the sound and tone, or as triumphant as performing a recital where all learned concepts are combined to create a musical product that is poignantly beautiful. The teaching model inherent in the interaction of these meta-themes can be applied to any student of any ability level with at least some amount of success. Because of this homogeneity of the model, while striving for the key goal of the quality of the student's musical creation, the crucial variable in the educational process becomes the teacher.

This teaching model is all the more appropriate considering the study's framework of reflective practice (Dewey, 1899, 1933, 1934). The teacher's role as the vital factor in facilitating the student's learning has been asserted before in the field of education (Simpson, et al., 2005; Woodford, 1994). However, it is sometimes assumed that the one-on-one context of the private music lesson merits substantially different teaching strategies than does the traditional classroom setting (Hseih, 2003). Although this proposed teaching model is not intended to be utilized in the traditional classroom setting, it does have some shared core ideology through reflective practice and experiential learning. There may then be a possibility that the two learning environments are more closely related than was previously thought.

Limitations of the Study

The emphasis on the character and quality of the teacher is a limitation of the study (see Chapter 1). These successful trombone professors may be effective in their teaching methods simply because of their persona, and not because of the merit of their actual teaching strategies (Hamann, Baker, McAllister, & Bauer, 2000). Thus, the teaching model delineated in Figure 5 only may be successful in the hands of such a professor. Yet, it is only logical that in order for any teaching model to be effective, the individual utilizing that model must be a proficient enough teacher (and in this case, trombone player) actually to implement the model (Madsen, et al., 1992). This limitation is fundamental to all teachers and models of teaching, and as such does not detract from the inferences made here.

A further limitation is the possible atypical nature of the students who study with these teachers. Although an attempt to control this has been made within the teaching model's adaptability to all students, the strategies of the participants may only be effective because the students who study with them are of a higher initial ability level than a typical undergraduate student in the United States. The stress on the underlying philosophy in the teaching model in Figure 5, and not the specific strategies of the participants, is a further attempt to control for this limitation.

Due to the design of the research, the sample size was small in this study, and so the results may not be generalizable to the population of trombone professors in the United States. The definition of a "successful" professor attempted to control for this; but the threat exists nonetheless. In this respect, the generalizability of the results was sacrificed for the rich and broad data set. The information collected would have been

much less specific and possibly less pertinent if the research design was structured for such generalizable results. In a further attempt to control for this, the purpose of the research is specified to the three trombone professors who participated in the study. Moreover, the goal of the research is not statistical generalization, but rather analytical generalization (Onwuegbuzie & Leech, in press-b).

Another limitation to the study is the interview instrument. Almost all collected data were gathered from the specific interview questions; consequently, if the instrument was too broad or too narrow, the most pertinent data may not have been collected. An attempt to control this was made by developing the instrument based upon the literature, and structuring the interview questions accordingly. Furthermore, a pilot test was administered to a local trombone professor to revise any confusing or misleading questions, and the amended instrument was verified against the literature again before being administered to the participants. It is hoped that this process was as thorough as possible. It is worthwhile to note that Drew did acknowledge the meticulousness of the interview instrument: "…all of what you're doing with this [research] is great because it deals with everything that we do [as trombone professors]. And I think you've been very thorough with that" (JD 4.1.11).

The final limitation to the study is the threat of researcher bias. In the qualitative paradigm, the researcher is ultimately the tool that makes the analysis possible (Anfara, et al., 2002; Onwuegbuzie & Leech, in press-a). As Patton (2002) aptly sums it up: "The human factor is the great strength and the fundamental weakness of qualitative inquiry and analysis—a scientific two-edged sword" (p. 433). The researcher is relatively confident that the procedures used in the study are adequately valid.

Implications of the Study

In order for the teaching model presented in this study to be effective, the crucial role of the teacher is paramount. For students to truly experience learning within the model, the teachers must actively be concerned with the student's education (Csikszentmihalyi, 1996). Through this involvement, the specific strategies incorporated within the model must be appropriate to the individual student, the musical product must be emphasized, and the student must be made aware of the process of improvement and the goal to be attained. The implications this has for the trombone pedagogical community are diverse in nature.

Primarily, the trombone teacher must realize that professional success as a college professor and his or her students' success is symbiotically integral to each other. But that concern must be elevated beyond personal career ambitions to become fundamentally centered on the student's unique learning experiences. Then, all students can benefit most effectively. Secondly, the trombone teacher should realize that not all of his or her students will enjoy success as professional trombonists. This is due to a wide array of factors, including the competition in the professional performance arena, the ever-evolving state of cultural appreciation for the arts in the United States, and the diverse abilities of each student. However, if a college trombone professor does not produce at least one successful professional performer per year, or even per decade, does that mean that professor is not successful? What is the definition of a student's "success"? Should the measurement necessarily solely be a performing career on the trombone?

To relate pragmatically this concept to the professional world of music performance, Rogers (1988) reports that nearly 2,100 music performance degrees were

awarded by member institutions of NASM in the 1984-1985 school year. The very next year, there were fewer than 800 vacancies in professional orchestras, chamber groups, and armed service bands in the United States and Canada, with a significant proportion of these openings representing only part-time employment. This is a best-case scenario of a 38% chance for employment (probably part-time). Taking into account the graduates from non-NASM schools, proficient performers with no music degrees, and "the enormous backlog from previous years" (p. 107), the performing graduate's chances for employment as an actual professional performer (even if only part-time) become miniscule. Rogers' (1988) examination was completed nearly two decades ago. If anything, with reduced funding and public interest in the arts (Zeigler, 1994), the employment situation today is very likely much worse. If the focus of trombone professors' teaching should be the student, then are we truly serving the student's best interests by defining their success as becoming professional trombonists?

Data from the current study suggest that perhaps there is more to teaching the trombone than simply producing career trombone performers: "…from a practical standpoint…how many Joe Alessis and Nitzan Harozs and Christian Lindbergs is the musical world and the world in general able to absorb" (JD 4.1.14)? Drew goes further to imply that the experience of learning such a craft is what is actually important: "...you can't give something that you don't have, and you can't share something you've never experienced" (JD 4.1.18). This ideology implies that the goal of music in the teaching model proposed here is applicable not only to trombone performance, but education of the instrument, music education in general, and even transferable beyond the scope of

music or education—to broaden students' perspectives and assist in the development of more culturally aware citizens (Reimer, 2003).

As a footnote, it is possible that the teaching model put forth in this study might conceivably describe how successful professors in other fields of applied music instruction teach undergraduate students. It is possible that the successful trombone professors who participated in this study share commonalities with those successful professors of other musical instruments. Could this teaching model be applied effectively to a studio of clarinets, or mezzo-sopranos, or celli? Given its basic education-based philosophical framework (Dewey, 1899), this might be possible.

Recommendations for Future Research

Possible future research might attempt to corroborate the inference that the proposed teaching model is possibly transferable to other fields of applied music. For instance, a replicated study in the presumably closely related field of euphonium pedagogy might yield significant similarities. Likewise, significant differences might be identified as well which may or may not be idiomatically based.

The teaching model also could be implemented in a trombone-related study to determine its effectiveness. Such an experiment likely would be longitudinal by necessity, and the personality of the teacher probably would be a key variable. Yet, the implications of a study like this could be fundamentally meaningful to the field of trombone pedagogy.

A specific finding that warrants further research is the relative disuse of the Arban's (1936) method book by the participants. This is in contrast to the literature, and from the data the only inference that can be drawn is that its use seemed to be thought

primarily for trumpet study, and not trombone. Further study into this esoteric finding may help to solve the discrepancy between it and the literature.

Another specific trombone concern that is unclear from the research relates to issues within articulation. The use of syllables with articulation is highly cited in the literature (Clark, 1996; Fote, 1974; Humfeld, 1974; Kemp, 1975; Reifsnyder, 1984; Uber, 1991; Yeo, 2000), but the analysis of emergent themes from the data yielded no conclusive results in the current study. Specifically, the concept of the legato tongue found disagreement among the participants: Olson favored "…an 'oo' or 'loo' or 'nah'" while still listening for the product" (CO 2.4.2.1), but Marcellus described "…to use the model of the sound of the long tone to teach how to repeat a soft 'dee' attack—the legato tongue" (JM 2.4.2.2). Drew specifically disagreed with this: "…I don't know any professional players that use a 'dee' syllable when they legato tongue" (JD 2.6.2.6), and went on to state, "Most trombone players I know use either an 'n' syllable or an 'l' syllable when they are trying to play as legato as possible—I personally prefer the 'n' syllable" (JD 2.6.2.7). The only conclusion that can be drawn from these data is that future study is warranted.

Further data collection within the field of trombone pedagogy could also be an area of future interest. If the research design is kept intact, the newly collected data essentially could broaden the data pool. This would yield additional rich data, and could help to substantiate or shed new light on the findings of the current study. To include other successful trombone professors would make the results from the combined studies even more robust, and the conclusions more generalizable to the population of college trombone professors.

Conclusion

This research originated with a question, which although it at first seemed relatively simplistic, concealed multiple levels of complexity: What teaching strategies do successful college professors utilize in teaching undergraduate trombone students? Through this research, not only did specific teaching strategies come to light through various emergent themes in the analysis, but an underlying educational philosophy was found through emergent meta-themes. This shared ideology inspired a proposed teaching model that could be helpful to understanding successful trombone professors' teaching strategies. Future research was proposed, both to add to the data pool of the current study and to implement the proposed teaching model to determine its practical effectiveness in other contexts.

Will this study change the way the trombone is taught? It is difficult to speculate on that point. Given the history of oral tradition and the model of apprenticeship in the field of applied music instruction (Colprit, 2000; Duke, et al., 1997; Kennell, 2002), the significant findings in this research only may be used in the actual trombone lesson in the future. Even then, just as trombone educators today stand upon the shoulders of forgotten giants, so perhaps might those who implement the findings of this study not even realize they are doing so.

In teaching the trombone, research and discussion regarding the process of learning is only the first step. Therefore, it seems only appropriate to close this investigation of how successful trombone professors teach their undergraduate students by quoting the collected data one final time. "One of the things that's always stuck with me that I heard Denis Wick say…when he was talking about the relationship between a

student and the teacher…'the teacher does whatever it is that he does as a player, and then he tells the student what he thinks he does. And the student hears what he thought the teacher said, and then he thinks that he does what he thought the teacher said that he thought that he did'. I think that process pretty well illustrates what can (emphasis) go on when you talk too much. Because playing is doing, playing isn't thinking about doing" (JD 2.1.2.3; 2.1.2.4). Hopefully, this research will serve the same overall goal as that of the proposed teaching model—the music itself. To obtain that goal, it is necessary to stop thinking about playing, and actually to start playing.

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Appendices

Appendix A

Interview Instrument and Script

For documentation, please confirm your name. (response) Thank you, (name). My name is Matthew Buckmaster, and I am interviewing (name) for research for my dissertation entitled *Teaching strategies of successful college professors for undergraduate trombone students*. (Name), have you received and signed the informed consent document required by research regulations here at the University of South Florida? (response) And do I have your permission to record our interview today and use any data and information from it for research purposes? (response) Thank you so much for agreeing to participate in this research study.

For your reference, these interview questions are addressed at the teaching strategies for undergraduate trombone students. Although it is understood that there is a wide array of ability levels among these students, please think of a "typical" or "average" undergraduate student when answering these interview questions. Also, please consider the context of these questions as being both in the individual lesson and outside the lesson in the student's own practice time. If any are unclear or need repeating, please feel free to stop me and ask for clarification. The entire interview should last no longer than one hour, and of course you may ask for a break at any time. If you're ready, we'll begin. (response)

- Philosophy of Playing/Teaching
    - Practice Philosophy
        - How much practice time do you recommend per day/week? How do you recommend distributing this time throughout the day/week?
        - How do you feel about mental practice (without the trombone)?
    - Etude/Method Books/Technology Utilized
        - What etude books do you use most in your teaching? Can you say that there is one that stands out from the rest in your teaching?
        - When you use method books, do you mostly use them to teach a single concept (i.e., legato tongue, tenor clef, lip slurs), a combination of concepts, or both? If both, why do you combine concepts in this way?
        - Do you use any technology/software regularly in your teaching methods (i.e., Vivace, Smart Music, Band-in-a-Box, etc.)?
    - Warm-ups/Daily Routine
        - Describe the daily routine/warm-up you recommend to your students, including the fundamentals and concepts you stress, etude/method books used, and amount of time for the entire routine.
        - Do you advocate mouthpiece buzzing to your students? If so, please describe how you recommend incorporating it in their practice.
        - Would you say your routine/warm-up is in the tradition of any specific school of thought (i.e., Remington, Cramer, Jacobs, etc.)? If so, how have you altered it to fit your teaching needs, if at all?

- Technique Issues
    - Breathing/Air Control
        - Please describe how you address breathing in your teaching strategies.
        - When you teach proper breathing on the trombone, do you approach it more physically, as in speaking of air flow and anatomy, or more conceptually, as in a cantabile approach to a phrase or song?
    - Slide Technique
        - Describe how you would teach proper slide technique to your students, including alternate positions and valve combinations.
    - Intonation
        - How do you approach teaching students to play in tune on the trombone?
        - Do you stress the use of an electronic tuner in your teaching? If so, how and why? If not, why not?
        - Are there specific exercises or etudes you use to help your students with intonation?
    - Articulation
        - Do you teach articulations syllabically (i.e. “tah”, “doh”, “too-koo”)? If so, please describe the syllables and when they are appropriate when playing.
        - Do you have any specific strategies for teaching a particular tonguing style (i.e., legato, double, doodle)?
        - Are there specific exercises or etudes you use to help your students with articulation on the trombone?

- Sound and Tone Quality
  - Please describe how you teach sound/tone concept to your students.
  - How important is listening to recordings and live performances to this concept?
- Range and Endurance
  - Please describe the teaching strategies you use to develop your students' range/register.
  - What is your teaching philosophy regarding embouchure development?
  - How do you develop endurance in your students?

- Musicianship Issues
  - Rhythm
    - Please describe how you develop students' rhythmic sense and feel.
    - Do you stress the use of a metronome in your teaching? If so, how and why? If not, why not?
  - Sightreading
    - Please describe the role developing students' sightreading plays in a typical lesson and what strategies and method books you would use to develop this concept.
  - Ensemble Performance
    - Do you stress chamber ensemble playing with your students (brass quintets, trombone quartets, duets)? If so, what specific skills are learned from these experiences?

- Varying Styles
  - Is there a specific genre/style you stress in your teaching (orchestral, soloistic, jazz, commercial, etc.)?
  - What importance do you attach to stylistic versatility in your students' playing?

This concludes the interview. Thank you, (name), for your participation in my research. May I have your permission to contact you again should the need for follow-up questions arise, and to authenticate the transcribed interview? (response) Thank you again. I will be in touch regarding the final document, and a complimentary copy will be sent to you when it is available. Is there anything further you would like to address, or any further concerns you have? (response) Again, my sincere appreciation for your participation in this research!

Appendix B

Transcribed Interview with Dr. John Drew

For documentation, please confirm your name. John Drew. **Thank you, Dr. Drew. My name is Matthew Buckmaster, and I am interviewing Dr. Drew for research for my dissertation entitled *Teaching strategies of successful college professors for undergraduate trombone students*. Dr. Drew, have you received and signed the informed consent document required by research regulations here at the University of South Florida?** Yes, I have. **And do I have your permission to record our interview today and use any data and information from it for research purposes?** Yes, you do. **Thank you so much for agreeing to participate in this research study.**

For your reference, these interview questions are addressed at the teaching strategies for undergraduate trombone students. Although it is understood that there is a wide array of ability levels among these students, please think of a "typical" or "average" undergraduate student when answering these interview questions. Also, please consider the context of these questions as being both in the individual lesson and outside the lesson in the student's own practice time. If any are unclear or need repeating, please feel free to stop me and ask for clarification. The entire interview should last no longer than one hour, and of course you may ask for a break at any time. If you're ready, we'll begin. OK.

- **Philosophy of Playing/Teaching**
  - **Practice Philosophy**
    - **How much practice time do you recommend per day/week and how do you recommend distributing this time throughout the day/week?**

JD 1.1.1.1 Ph:CIC — Well, first of all, (pauses) I like to—in my approach to teaching and my approach to most things—deal with concepts, principles, and fundamentals. (pauses) And if you don't address these (emphasis) issues, then I think everything else is superfluous. So I think that that kind of supersedes all else, and when you get to the nuts and bolts, obviously

JD 1.1.1.2 Ph:HI — those are important. But that's kind of an overriding principal of mine; you deal with (pauses) the conceptual issues and everything else tends to

JD 1.1.1.3 Ph:SI:P — fall under those umbrellas. So, when it comes to the specifics of how much practice time, I (pauses) emphasize—I really don't specify so

JD 1.1.1.4 Ph:SI:P:E — much—I emphasize practicing for results, and not amounts or numbers. I think you work for practice efficiency. (pauses) If you are an education major, then you have a certain kind of direction and goals and objectives;

JD 1.1.1.5 Ph:SI:P:AT — and your (hesitates) practice time is going to be less than that, obviously, of a performance major. If you are a performance major, then—I mean, every student is unique, so they're going to have their own individual issues…(pauses) I'll make a point with my performance majors. The next person that inherits Joe Alessi's job or the next coming Christian

JD 1.1.1.6 Ph:CIC — Lindberg; those people are not going to be less good than either of those two guys, for example. And those two guys are really (emphasis) good.

Now Alessi (pauses) advocates practicing five sessions a day, 45 minutes a piece. Lindberg, at one point when he wasn't performing, would do an hour of warm-up which would be 50% yoga, 50% playing interspersed in between. Then he'd run for half an hour, eat breakfast, and for the next eight hours he's 30 minutes on, 20 minutes off. I mean, these guys have learned how to be very efficient with their practice and they also have a lot of time that they're putting in. If you're going to start out at the same ability level as either of those two guys, and they're putting in twice as much practice time as you, it's pretty obvious who's going to come out on top. So, I think the point that, again, it's not being a slave to the clock so much as it's adding the goals and objectives and being able to work towards that efficiently. It's about those issues much more than it's about time, specifically. Now, the university would recommend that an undergraduate would practice a couple hours a day if you're an education major, and up to four hours a day if you're a performance major. But again, that's not something that I say that you have to watch the clock and do. When it comes to distributing time throughout the week…(pauses, considering) I think that there needs to be a balance in your practice, absolutely. To that end, I'll include in my syllabus a specific amount of time that in the average practice hour—and I've broken it up into two hours—working on solos, you'll take X amount of minutes, and so on and so forth. And that's kind of as a role that you can take a look at and it's (conceding) more or less what you would want to do…on the average.

JD 1.1.1.7
Ph:HI

JD 1.1.1.8
Ph:SI:P:E

JD 1.1.1.9
Ph:SI:P

JD 1.1.1.10
Ph:SI:P:E

JD 1.1.1.11
Ph:SI:P:AT

JD 1.1.1.12
Ph:SI:P:AT

However, I'm personally not against binge practice. (pauses) By that I mean if you're working on something specific it's OK to spend maybe an entire session, if not an entire day working on a specific thing, as long as that's not the be-all and end-all of what you do with your practice. (pauses) That's kind of where I come from when it comes to my practice philosophy.

- **How do you feel about mental practice (without the trombone)?** Oh, I think that visualization is incredibly important. Musicians have (pauses) seemingly always followed on the coattails of the advances made by people in the athletic areas. Some of the best athletic achievers are notorious for using visualization as an extremely valuable tool. When it comes to performance and performance anxiety, I think that's extremely effective. **Would you recommend also some of the books that are written in that vein—not necessarily about music or trombone, but can be applied to those areas nonetheless, such as *The Tao of Pooh*?** Yes, and *Zen and the Art of Motorcycle Maintenance* (laughs). And certainly *The Inner Game of Tennis* I think is a standard point of reference for anybody who is in the performing arena.

JD 1.1.2.1 Ph:SI:P:M:V

JD 1.1.2.2 Ph:SI:P:M:R

JD 1.1.2.3 Ph:HI

JD 1.1.2.4 Ph:SI:P:M:R

  - **Etude/Method Books/Technology Utilized**
    - **What etude books do you use most in your teaching? Can you say that there is one that stands out from the rest in your teaching?** Well, method books for me are kind of like solos, and again, it kind of comes back to the answer to my philosophy of practice. (pauses) Basically, I like

JD 1.2.1.1 Ph:CIC

to isolate specific technical issues, be it range, tonguing, or whatever, through the routines or daily drills. When a student plays something that's musical, I tend to get them to focus on the music and not so much the means by which it's made. So, with that in mind, I use basically whatever technique books that the student tends to have. I think all students need to have a background in the clefs, and if they're very elementary then I'll have them either start with the Fink, introducing one or the other clefs, or the Sauer, which has both. Then the more sophisticated students can go to the Blazevich clef studies. (pauses) So, that is one component that all students basically face with me. When it comes to technical books, I basically tend to use whatever book the student has. If it's the Blume 36 Studies, Kopprash 60 studies, the Tyrell, even to some extent the Arban's. I'm comfortable using any of those books. (pauses) The legato studies—the Bordogni vocalises—are the trombone player's bible in that regard (chuckles). I think that all of us use that, (pauses) with good effect. The more sophisticated students are going to move up to other kinds of things, but for the most part this is the meat of what I use for my undergraduate students. **So it depends then on the individual student?** It depends on the student—where they are, what their ability level is, and to some extent, what they have (pitch rises). Because I'm comfortable using a lot of things…as I say, it's the approach, it's not the specific method so much for me.

JD 1.2.1.2 Ph:HI

JD 1.2.1.3 Ph:SI:EMB

JD 1.2.1.4 Ph:SI: EMB:C

JD 1.2.1.5 Ph:SI: EMB:T

JD 1.2.1.6 Ph:SI: EMB:T

JD 1.2.1.7 Ph:CIC:TI

JD 1.2.1.8 Ph:HI

- **When you do use method books, do you mostly use them to teach a single concept (i.e., legato tongue, tenor clef, lip slurs), a combination of concepts, or both?** Well, again—this comes back to my philosophy of isolating a specific technical issue. (pauses) I want a student to focus on the music. (quickly) If they have a technical problem, then we'll find a routine or something very specifically that addresses that. But when it comes to something that (pauses) deals with music, be it an etude or solo materials, then I have them focus on the music itself. I think too many students try to approach the practice of an etude or solo like they're baking a cake. They save the musicianship for last, like it's the icing they use to cover the notes and the technique. But I think performances are always a reflection of practice, and I'm fundamentally against this approach. Of course, the exception always proves the rule, and on occasion I've been known to ask a student to play everything very loudly trying to open up a student's sound. But (haltingly) that's not really what I want (emphasis) to do, and that's not really what I want the student to do. I think the student needs to realize that everything is in the service of music, and they need to practice accordingly. If they have a specific technical issue, I don't really have them deal with that so much in the context of one specific kind of technique book.

JD 1.2.2.1 Ph:HI:TM

JD 1.2.2.2 Ph:HI:TM

JD 1.2.2.3 Ph:HI:TM

JD 1.2.2.4 Ph:HI:TM

- **Do you use any technology/software regularly in your teaching methods (i.e., Vivace, Smart Music, Band-in-a-Box, etc.)?** No, I don't (high pitch). (pauses) I am aware of some of those things, but maybe it's

JD 1.2.3.1 Ph:SI: TS:LU

because I'm an old dog, I don't know. But I really haven't gotten around to it. I'm sure that some of the things that are out there—Vivace and so on and so forth—are very good tools, I just don't happen to use them in my teaching.

- **Warm-ups/Daily Routine**
  - **Describe the daily routine/warm-up you recommend to your students, including the fundamentals and concepts you stress, etude/method books used, and amount of time for the entire routine.** Ah, now we're getting to the meat of it (laughs). For me, as you've already gathered, the warm-ups and daily routines are an extremely important part of any person's practice. I (pauses) have used a variety of things that I no longer use, but it was good to have used them. I have a set of routines, or daily drills—call them what you will—that I will give to my students. And I'll have them start with a certain few core things, and then add to them. But for me, again, I'm not so concerned with (pauses) what they play as far as daily drills are concerned, it's how they play them. So, I encourage them to find something to start with that just deals with fundamentals; and a lot of times I'll have students start with moving the air and have them make the point of resistance be the embouchure. So, those are the two fundamental issues of sound production. The tongue is eliminated from this equation. So, I'll just have them start by going "ho" and producing a sound that way. Something that gets them moving the air, gets them sounding good, gets them feeling good about themselves and their

JD 1.3.1.1 Ph:HI
JD 1.3.1.2 Ph:WR:F
JD 1.3.1.3 Ph:CIC
JD 1.3.1.4 T:EM:NT
JD 1.3.1.5 T:EM:NT
JD 1.3.1.6 Ph:HI:OC

playing—dealing with concepts and sound initially. And then moving on to something that gets to be a little more challenging, and then finally (emphasis) getting to the point that they start addressing issues in their playing. So, my approach to working on daily drills and routines is that you start with a few things that you like, a few things that you do well, and then you start addressing your problems and your issues. And with every student…everybody has something (emphasis), and for whatever the specific issue may happen to be, I've got usually several kinds of specific drills or routines that focus on that issue exclusively. You know, if you're trying to develop your upper register, there are a few high notes in the Borgoni vocalises, but that's not specifically what those things are designed to do. So, I've got specific things that work in the upper register; or for tonguing, or for whatever. These are what I will give a student and then encourage the student to find tangents from that. Also, as part of my (pauses) routines and what I encourage students to start doing in their routines—it becomes a tangential approach. You will play through an etude or a solo, and you'll encounter something (emphasis) that is really awkward for you. Usually you can identify the several notes or the kinds of things that are causing you problems. So, what I do is I will extract those things and I'll move those to my routines. Long after the etude is played or the solo has been performed, then if that kind of thing is still problematic in my playing, then I'm going to be doing that over and over and over. And I also try to devise other types of routines that complement

JD 1.3.1.7 Ph:WR:II

JD 1.3.1.8 Ph:CIC:TI

JD 1.3.1.9 T:RR

JD 1.3.1.10 Ph:CIC:TI

JD 1.3.1.11 Ph:HI:OC

JD 1.3.1.12 Ph:WR:II

JD 1.3.1.13 Ph:WR:II

the problem I'm addressing. So, after a while, what was a weakness hopefully becomes a strength. If the student will be diligent with this

JD 1.3.1.14 Ph:SI:P:E

approach to each problem encountered, then you will soon find that all the issues start overlapping and the technical problems are dealt with much

JD 1.3.1.15 Ph:HI:OC

more efficiently. As incredibly important as routines and daily drills are to me, I don't usually specify, "you've got to play this right now," unless the student has a specific problem, in which case I'll give them at least one

JD 1.3.1.16 Ph:WR:II

and up to three things to work on. Then I expect that the routine maybe a month down the road will have evolved into possibly something else and, ideally, will continue to evolve and improve in many ways and directions.

So this is similar to your philosophy of practice time per day/week for

JD 1.3.1.17 Ph:CIC

a student—it all depends on the individual student? Absolutely. And it depends on the goals and objectives.

- **Do you advocate mouthpiece buzzing to your students?** You bet, and I

JD 1.3.2.1 Ph:WR:FB

also advocate free buzzing. Reginald Fink in *The Trombonist's Handbook* has a little suggestion that he makes that I think is valuable, and that's in 60 seconds time or less he has a student buzz Mary Had a Little Lamb, I think starting on Bb, then a half step higher, and then buzzing a scale—and all this free buzzing. And I think that although there isn't a direct

JD 1.3.2.2 Ph:WR:FB

correlation to playing like there is with mouthpiece buzzing, I think that that for a lot of people is valuable and useful. Admittedly, there are those people who can't do it and are extremely good players, but still I think by

JD 1.3.2.3 Ph:WR:MB:HU

and large that tends to be helpful. Certainly for everybody (emphasis) I

think mouthpiece buzzing can be effective. (quickly) If for no other reason, it's a great (emphasis) barometer. I find that the majority of times that people miss things it's because they're not hearing the pitches before they play them. And buzzing will help show you that—or singing, or whistling, or whatever else—but I think buzzing is a great tool. **When you put the mouthpiece back on the trombone, are you physically doing exactly what you did when you were just buzzing on the mouthpiece?** The resistance is different, but for the most part, yes. Now the exception to that is—for me, at least—when you get in the extremely low register. (pauses) I change a little bit there. But for the meat of the register, you're going to find that what you're doing with the mouthpiece is basically physically the same, although you may have to adapt slightly for the change of resistance.

JD 1.3.2.4 Ph:WR:MB: HU

JD 1.3.2.5 T:RR:CE

JD 1.3.2.6 Ph:WR: MB:HU

- **Would you say your routine/warm-up is in the tradition of any specific school of thought (i.e., Remington, Cramer, Jacobs, etc.)? If so, how have you altered it to fit your teaching needs, if at all?** Well, I've talked a great deal about that—probably longer than I needed to. I have stolen, as I think most people have, from a variety of sources, including Remington. But I think that my routines, as you've gathered, may mirror (emphasis) some of these people and the things they've done, but it would be more by accident than by design. Again, when a student has a specific issue, I have a specific routine that will deal directly with it. Like I say, usually it's not just one, it's usually at least two or three.

JD 1.3.3.1 Ph:WR:ST:R

JD 1.3.3.2 Ph:CIC:TI

JD 1.3.3.3 Ph:WR:II

- **Technique Issues**
  - **Breathing/Air Control**
    - **Please describe how you address breathing in your teaching strategies.**

JD 2.1.1.1 T:B:RE
From a technical or physical standpoint, nothing is as important as the proper use of air. It's 80%, at least, of what we do. (pauses) In my teaching I try to have a variety of things that I can use as an approach. I

JD 2.1.1.2 T:B:OOC
think that the idea of a hot potato or hot soup in your mouth—I think that's effective for some students. I also basically tell students two things:

JD 2.1.1.3 T:B:PC
"I don't want to hear you breathe, I don't want to see you breathe." You know, when you tell students to take a big breath, a lot of times you'll see the student raise their shoulders, and you don't want to see that. And you don't want to hear the breath because there are about seven things that get in the way of the air stream; so when you hear a person breathe, then

JD 2.1.1.4 T:B:PC
basically something (emphasis) is in the way. So, sometimes I'll tell the student—depending on the student, depending on the circumstances—to

JD 2.1.1.5 T:B:OOC
lower the pitch of the breath. You can often associate a pitch with an audible breath: (inhales audibly and sharply, creating a high pitch "hah"). And then you lower it an octave: (inhales audibly but with a lower pitch on "hah"). And lower it an octave: (inhales much less audibly, "hah" is barely discernable). And after a while, if you lower it enough octaves, it's

JD 2.1.1.6 T:B:OOC:BT
gone. But nothing for me is as valuable as the use of a breathing tube. Basically, in my teaching, I like to go through the back door when I can. Rather than say, "do this with the muscles, don't do that with the

JD 2.1.1.7 Ph:HI:OC
muscles," I think the use of a breathing tube is an absolutely terrific way to get the student to do the right thing without having to be distracted by analysis. I'll hand out (pauses) PVC pipe—about a four inch length of PVC pipe to students; it's one to one and a quarter inches in diameter—

JD 2.1.1.8 T:B:OOC:BT
and have them breathe through it: that's the way I want them to feel the air moving. I encourage them to put it on their stand and continue to use it as they practice; every few minutes stopping to breathe through the tube

JD 2.1.1.9 T:B:OOC:BT
and reinforce the relaxed, free movement of air. I think nothing probably is more effective by and large than that tool.

- **When you teach proper breathing in an actual lesson, do you approach it more physically, as in speaking of air flow and anatomy, or more conceptually, as in a cantabile approach to a phrase or song, or a mixture of both?** I would say a mixture (pitch rises) depending on the student. The younger students, I think it's better that the more they know about trombone playing as a teacher, maybe, the better. But the more they know about playing as a player, that's not necessarily the case. So I tend to think in terms of modeling, in terms of doing, and not so much in terms of talking. One of the things that's always stuck with me that I heard Denis Wick say—this was many years ago at an International Trombone Workshop when they were held back in Nashville—when he was talking about the relationship between a student and the teacher; it was something to the effect that "the teacher does whatever it is that he does as a player, and then he tells the student what he thinks he does. And

JD 2.1.2.1 Ph:CIC:MTS

JD 2.1.2.2 Ph:CIC:TI

JD 2.1.2.3 Ph:HI:ML

the student hears what he thought the teacher said, and then he thinks that he does what he thought the teacher said that he thought that he did". I

JD 2.1.2.4
Ph:HI:ML

think that process (emphasis) pretty well illustrates what can (emphasis) go on when you talk too much. Because playing is doing, playing isn't thinking about doing.

- **Slide Technique**
  - **Describe how you would teach proper slide technique to your students, including alternate positions and valve combinations.** Well,

JD 2.2.1.1
T:ST:P

two things: basically, there are all kinds of variants that you'll see with the way people hold the slide and the way they move the slide. I think that for most of the students, if I sense that there's an issue with the slide,

JD 2.2.1.2
T:ST:SC

movement, I'll simply have the student take the outer slide off and have them (considers and pauses) just rest the brace of the slide on the index and second finger. Then I'll have them allow the thumb to curl down on the other side of the brace. I'll make sure that the thumb isn't straight and tight (emphasis), but it curls down and is relaxed. And then you'll find that the other two fingers will curl naturally into the palm of the hand. Then I'll have them put the slide back on and tell them "hold the slide that

JD 2.2.1.3
T:ST:SC

way from here on out." And then that also encourages the kind of movement where you're promoting more flexibility with the wrist. Again,

JD 2.2.1.4
Ph:HI:ML

that's something that is a "do" approach, not so much a "think" approach. It pretty much takes care of itself for most students after that. As for alternate positions, (pauses)…one of the things I like to tell my students is

JD 2.2.1.5
T:ST:AP:HU

this: if they're practicing their scales, (as an aside) obviously you're going to use your alternate positions for a variety of reasons and circumstances,

JD 2.2.1.6
T:ST:SC

but I'll tell them to make sure to put their half steps together. For the most part, there are only about 4 major scales where you have to make that adjustment. If, for example, you apply this principle to the F# major scale, it becomes the same as the G major scale, only two and a half inches further out on the slide. So that's essentially the most important suggestion that I give as far as enhancing a person's slide technique.

- **Intonation**
  - **How do you approach teaching students to play in tune on the trombone?** (jokingly) Well, I usually hit them on the head about four or five times. (laughs) There's several things that are issues that need to be addressed. First of all is a student's lack of awareness. As you know,

JD 2.3.1.1
T:I:SA

intonation to some extent is a learned phenomenon, and if you've not been made aware of an intonation problem then the ear tends to accept and tolerate a lot of things. We've got in our educational system the process where the student is taught to play Bb in the 4th partial, D in the 5th partial, and F in the 6th partial, all in the same position, without adjustment. The beginning books tell you "this is where you do it," yet on average those 6th partial notes are about 20 cents sharp. But far too often, by the time the student gets to me that F is going to be in the same first

JD 2.3.1.2
T:I:SA

position as the Bb. And they accept and tolerate it because, for one reason, the ear tends to tolerate sharpness more…Barry Tuckwell said,

"better to play sharp than it is to play out of tune." So it seems to me that our first task is to make the student aware that an adjustment is necessary.

JD 2.3.1.3
T:I:SA

I'll play a Bb and an F with an unadjusted position and I'll say, "how's that sound to you?"… "well, it sounds fine." Then I'll play a Bb and adjust the F, and then go back and play the Bb and the unadjusted F. And all the sudden, they've discovered sharpness. First the process is to make the student aware physically (emphasis). In that same vein, I've got a student that just finished a treatise on linear intonation, and it's very

JD 2.3.1.4
T:I:TI

interesting. A lot of truth to it; some of our intonation problems aren't just ear issues alone. Because when you're playing fast passages, and you've got a first position F, you've got a third position Eb, and you've got a fourth position D, then we're going to tend to equalize those positions. So, there's that kind of issue that I think has to be addressed as

JD 2.3.1.5
T:I:SA:ET

well. (long pause) The next step is to deal with the training of the ear…what to listen for. And when it comes to identifying pitch issues then it becomes a matter of dealing with beats. Milt Stevens wrote an article—actually it's a handout—maybe you've seen it?..."Tune It or Die". And in that it goes through the entire chart of what the tendencies are, and so on and so forth. So I in master classes usually give parts of that as a handout.

- **Do you stress the use of an electronic tuner in your teaching?**

JD 2.3.2.1
T:I:UT:HU

Absolutely. I think that's an invaluable resource. (quickly) Of course, it deals with intonation (pauses) in a linear fashion. I mean, it's not the best

JD 2.3.2.2 T:I:TI when it comes to playing in ensembles, but you get an idea of what you need to do to play in tune on this note. Kinetically, you have to have this awareness of "OK, right here's where Eb and D's in alternate fourth should be located." Then it forces you to start listening (emphasis). I'll tell a student the thing you've got to do is you've to put the tuner on the side of the stand so that you can play and you can glance at it when you want to but you don't look at it until you have made any adjustments you feel are necessary. You need to keep coming back to the Bb as a reference point periodically as the pitch level can vary. I like to have students go through an exercise, and every (emphasis) Eb that they play, for example, or whatever the note is, they're going to stop and they're going to adjust it until they feel it is in tune. We've all (emphasis) done that, and for the first week—if your tuner survives, (pauses) and some have not—after that point, then I think the value of it proves itself. **On that particular exercise with the Eb, would you choose a piece that's actually in Eb; where Eb is the tonic?** As long as I can get a student to use the tuner, I'm—generally speaking—pretty happy. (laughs) So it matters less to me what key that they're in. Another great use of it, I think, most of these tuners have a drone. You can drone an A, or whatever the pitch is. And I think that you can use that as a point of reference and then play various intervals around it and listen to the beats. I think that is another way that adds flexibility to the use of an electronic tuner.

JD 2.3.2.3 T:I:SA:ET

JD 2.3.2.3 T:I:SA:ET

JD 2.3.2.4 T:I:UT:HU

JD 2.3.2.5 T:I:SA:ET

- **You've mentioned some specific exercises you use; are there any specific etudes you use to help your students with intonation?** Are you familiar with the Kodaly? **Yes.** I give that to students—I think that's excellent. Anything that you're doing, to have two people playing; and having them listen and make that adjustment. Of course the Kodaly does it with various intervals and in my opinion is very effective. And trying to get students to perform accompanied solos is beneficial because you practice your solo and you practice your solo, and it's an artificial set of circumstances—you use your tuner, you do this—and then all of a sudden you put it with piano. And it's a whole different ball game. So getting students to play in any kind of situation that isolates themselves as far as chamber ensembles, solo with piano, or duets—whatever circumstance forces them to focus on intonation issues is critically important.

JD 2.3.3.1 T:I:SA:PO

JD 2.3.3.2 T:I:SA:PO

- **Articulation**
  - **Do you teach articulations syllabically (i.e. "tah", "doh", "too-koo")? If so, please describe the syllables and when they are appropriate when playing.** I think that we all play (emphasis) with syllables. And to some extent, I'll teach them. But I don't have an agenda in teaching them. I think basically everyone in the upper register to get that air stream moving fast is going to go "tee". That tongue's going to be arched, and it's a natural thing. If you're having problems with it, than we may go through and talk about the specifics of where the tongue placement needs to be. And of course, "tah" in the middle register and "toh" in the lower

JD 2.4.1.1 T:A:S:LU

JD 2.4.1.2 T:RR:RA

JD 2.4.1.3 T:A:TP

JD 2.4.1.4 T:RR:S

register. But when a student has problems, basically there are two things that I do. One of them which is have them go to the mirror, adjust their head back, and have them whisper tongue, and just watch what happens: (lightly and quickly articulates nine eighth notes, very softly). You can basically see what's going on, and explaining to the student that it's not the tip, but it's the top of the tip of the tongue—that's basically where it needs to strike. So that's the first thing when it comes to (pauses) articulation. I (pauses) don't necessarily say an awful lot about the syllables themselves.

JD 2.4.1.5
T:A:TP

JD 2.4.1.6
T:A:S:LU

- **Do you have any specific strategies for teaching a particular tonguing style (i.e., legato, double, doodle)?** I'm not so much into doodle tonguing because I'm not so much into jazz. Basically, for me it's the double and triple—you start with the double. I'll talk to the student about how the "too" and the "koo" alternate from the front and the back. The "too" is always going to be stronger—or at least that's going to be the tendency initially—and then the "koo" tends to be weaker. So I'll have the student just isolate on: (articulates "koo" thirteen times at a medium tempo, accenting the first, fifth, ninth, and thirteenth notes), and get comfortable going "koo". Then the next thing I'll have them do is reverse the tendency. So they'll articulate a strong "koo" and a light "too". So it would be too-KOO, too-KOO, too-KOO, too-KOO (emphasizing KOO). And I'll have them try to get comfortable with that. Then the next step in the process in double tonguing is try to have them equalize it to the point

JD 2.4.2.1
T:A:TP

JD 2.4.2.2
T:A:PB

that nobody can hear the difference in the articulation. They do it very slowly, with quarter notes and then moving the quarter notes faster until it becomes eighth notes, and so on and so forth. Basically, it is a three-step process when it comes to learning to multiple tongue.

- **Are there specific exercises or etudes you use to help your students with articulation of any kind?** Yes, and this comes back to my philosophy of (pauses) routines. And right here is one of the things I'll have students address in the routines. I have an exercise that I think works extremely well—in fact, there was a Master's student here working in (pauses) music therapy, I think it was, several years ago, who increased her single tongue speed by 42 beats a minute in one semester's time. I first of all have the student find their baseline of how fast they can single tongue. I define that as your ability to play twelve sets of four sixteenth notes. And so they'll turn the metronome on and find where they can: (single tongues twelve sets of four sixteenth notes at a medium fast tempo). Let's say that can sustain 12 sets of 4 at 120. So, the exercise consists of a warm-up set of 12 at any speed less than 120. It can be 60, it can be 80, it can be 108—it could be maybe something different every time. Basically you're just warming up the tongue. And then the next thing you do is your target. Now if you can barely (emphasis) make 120, and you get buried at about the tenth and eleventh set, then 120 is your target. But if you can make 120, then you skip right to 126. And I'm talking about metronome clicks, obviously. So, they'll try to shoot for

JD 2.4.3.1
Ph:WR:II

JD 2.4.3.2
T:A:SC

twelve sets of four and try to keep up, and regardless of what happens, they don't repeat. They then click the metronome one more time, and they do six sets at 132—and they only do that one time, too. Then they'll click it again and they'll do four sets of the next click. They'll click it again and they'll do three sets. And if at any time you can make it comfortably, then you'll click it again. If you can do three at 144 pretty easily, then click it again to 152 and do three. When it starts getting down to three and then two, then I'll encourage students to repeat at that speed several times. When I do this, at 160 I can do three sets of: (single tongues three sets of four sixteenth notes at MM=160 on B). And: (sings same figure, but up a whole step to C#). I may play it up the scale about three or four steps (pitch rises). Then I'll move the metronome ahead another click to the point where I reach 168 to 176 and I'm tonguing just as fast as I can possibly go to keep up. Now obviously (emphasis) I cannot sustain single tongue at 168 beats a minute, but by pushing myself to go that fast in small bursts, I'm forcing the tongue to move much faster than normal; which, in turn, pushes forward the sustained single tongue speed. I'll have the student practice this at least one time a day, and if they have several practice sessions they can do it in each session. This should only take a couple of minutes, because as you know, the (pauses) more you practice single tonguing, the thicker the tongue seems to become and slower the tongue speed tends to be. The point of the exercise is to really concentrate on the fast bursts. Generally speaking, on the average, every student—

JD 2.4.3.3
Ph:CIC:MTS

JD 2.4.3.4
T:A:SC

(pauses) with very few exceptions—every (emphasis) student is able, if they've never done something like this before, to move their single tongue speed up by at least one click over the course of a week. When they come back, if they're at 108, then I can pretty much be assured that they'll be at 112. And usually by the next week they'll be one more click ahead as well, sometimes two (emphasis). Of course, after a while you start getting diminishing returns, but it's a wonderful (emphasis) exercise, and that's one of the specific things that I'll if a student has a problem with single tongue speed.

- **Sound and Tone Quality**
  - **Please describe how you teach sound/tone concept to your students.** Well, (hesitantly) I don't know if we teach (emphasis) concept so much as we help foster its development, in any respect. (considers) But I think

JD 2.5.1.1
T:STQ:L

that there is no better vehicle for dealing with concept than by listening.

JD 2.5.1.2
T:STQ:M

And I'll even model for the student, or have the students listen to the plethora of recordings that are out there. I have my favorites—I think

JD 2.5.1.3
T:STQ:L:R

there's several people that are better role models than others to start with. Joe Alessi is one of the people whose names I frequently recommend.

JD 2.5.1.4
T:STQ:L

Listen, listen, listen!...because you absorb the influences of what you hear. There's nothing that's a shortcut to that.

  - **You mentioned recordings, but what about live performances?** Listen

JD 2.5.2.1
T:STQ:L:LP

as much as you can—absolutely. (quickly) Take advantage of everything you possibly can. Live performances—as long as it's good playing…I

mean, if the best trombone playing that you've been hearing throughout high school is the person sitting next to you in the band, that's not necessarily a paragon of virtue. So it matters not to me—just listen, listen, listen. Not to take advantage of all the recordings is kind of like learning to talk by reading. (laughs) You just can't do that—learning doesn't take place in vacuum like that. I think that's one of the reasons that the standards in trombone playing have risen exponentially over the last several decades. Just listen to some of the early recordings, and you'll note that the standard of trombone playing has just skyrocketed. To some extent, it's—the availability of information, certainly—but nothing (emphasis) more importantly than the availability of great (strong emphasis) playing that's available. Any person, anywhere, can listen to a great player. **You've mentioned modeling more than once; how does this come into play with your teaching strategies for sound and tone concept?** Well, the student stands there, and you play a note, and the student plays the note. (matter-of-factly) Play what you hear. It can be on a note-by-note basis, a phrase-by-phrase basis, but it's just getting that sound, getting that concept in the head.

JD 2.5.2.2
T:STQ:L:R

JD 2.5.2.3
T:STQ:L

JD 2.5.1.4
T:STQ:M

- **Range and Endurance**
  - **Please describe the teaching strategies you use to develop your students' range/register.** First of all, we talk about the principles involved in playing in that register. In the upper register the air's going to move much faster, but you're going to use much less of it. If necessary,

JD 2.6.1.1
T:RR:RA

JD 2.6.1.2
T:RR:S

JD 2.6.1.3 T:RR:CE
we'll talk about the "ee" of the tongue. And we'll talk about the firmness of the embouchure and we'll talk about those kinds of physical issues in a

JD 2.6.1.4 Ph:CIC:MTS
very, very broad way. Then from there, we go on to use scales and arpeggios, primarily. Now, you can use a lot of things, and I don't think you should exclusively use any one thing, but (pauses) probably nothing is

JD 2.6.1.5 T:RR:CE
better than scales. Because with scales, there is no opportunity for major embouchure adjustments. If you want to expedite the matter—using arpeggios, getting up and then either going chromatically or diatonically from there I think is good. (quickly) But the thing I always emphasize with students is—in the upper register you'll start and play at least (emphasis) two octaves before you get to wherever you consider to be your upper

JD 2.6.1.6 T:RR:CE
register. Because I see too many students that have come in that have good upper registers, have good lower registers, and don't have a connection because they've got a shift that's in there. So I'll have the student start by using scales and arpeggios, and they'll start low and go high. That usually ensures that all the shifting will be done inside the mouthpiece. So that's very important to me. I'll make a point of telling

JD 2.6.1.7 T:RR:RA
the student, in the upper register "small is good." I'm basically quoting Jay Friedman on that. So, when you get in the upper register, whatever the highest note that you can control, then the next note when you play is not going to be this great big beautiful Joe Alessi sound, it's going to be a squeak!...well, squeaks are good. So we keep squeaking, higher and higher and higher, and then the notes that are underneath that—the solid

part of your upper register—they should also climb accordingly. So if you can play a Bb with a great sound and great control, and you can squeak a C#, then look at your D, and hopefully, the B natural will become more secure, and so on and so forth—and it should move accordingly. So that's the way I encourage students to progress, and I also make a point to say

JD 2.6.1.8
Ph:SI:P:P

"you've got to be patient." Because when you're working to develop many areas of your technique, a lot of times it's just a matter of learning

JD 2.6.1.9
T:RR:MD

the proper coordination of muscles and air. The first time you ever played a pedal Bb, it was by accident probably, and you think "what happened and how did I do it?"...so you try several other times and then you finally get the right combination of embouchure set and air speed, and it works, and you think "oh!, OK." Well, when you're working to develop the upper register you not only have to do that, but you also have to develop

JD 2.6.1.10
T:RR:MD

strength. So it gets to be a slower process, and people have to have patience. And realize also that if you do an awful lot of high register practicing today, then you may need to be careful what you practice tomorrow, and you will need to experiment to find how to balance the rest of the practice week so that the playing continues to develop on all fronts without being set back by an over-zealous day. So the student has to find

JD 2.6.1.11
Ph:SI:P:P

an approach that keeps them moving without (pauses) frustrating them. It gets to be difficult for some people because if you're not careful, a student who really wants to cram upper register exercises can wind up playing not nearly as securely in the upper register as they could before, if they

JD 2.6.1.12 T:RR:MD approach it improperly. So you have to talk about the balance and how muscles need their rest, and you can do a little bit every day; or maybe it's best for you to do quite a bit one day and then don't do any specific upper register work for the next one or two days, depending on how much you've done. So, it can be tricky dealing with the upper register. The lower register is basically just the opposite—you're going to use a lot more air, but at a much slower rate, the lower jaw is typically going to go down and usually out, and if necessary we'll talk about the syllable "oh". When you get down to the pedal register, down to approximately F#, then that's the point at which most trombone players are going to shift their jaw. **Would you say there's any relationship you find in your students between developing the lower and upper registers?** I think absolutely there's a correlation. It's like Michael Mulcahy said one time when he was here, "the lower register is the foundation of your playing, and if you don't address the lower register—and you have problems with the lower register—you're going to have problems somewhere, sometime, somehow with your playing." So, absolutely—I think even for tenor trombone players, it's very important that the practice in the lower register not be neglected.

JD 2.6.1.13 T:RR:RA

JD 2.6.1.14 T:RR:S

JD 2.6.1.15 T:RR:CE

- **What is your teaching philosophy regarding embouchure development?** (pauses, considering) I guess this gets back to when I was a—I got an undergraduate degree in music education—and when I walked into my practicum the first day, the supervising teacher, who taught at all

three levels, elementary, middle, and high school, had the fourth graders who were starting their new instruments that day. I was just absolutely bewildered and amazed—I mean, you've got some of the kids who don't know how to put the clarinet or the flute together, you've got the trombone players who don't know if the slide goes to the right or the left of the bell…the trumpet players had it figured out—they just stick in the mouthpiece and then they start playing and wiggling the valves. Everybody's playing, everybody's doing everything at once. And it occurred to me at that point that every person—if you're going into music education—has to have three or four, no more than five steps that within a minute's time or less they can tell a student "do this, do this, do this—and your embouchure's set." With trombone—you know, it's too bad and so unnecessary that so many people have embouchure problems with the trombone. It's simple, so incredibly simple. I'll have students say "M" in the mirror, and it pretty well brings the opposing muscles into contrast, and that pretty much takes care of their embouchure. Now if they have really thick lips I may have them roll the red together just slightly (emphasis). But I'll have them say "M" and also you put the mouthpiece in the center of your lips. Now for the most part they're going to center that mouthpiece left to right and up and down. And if it doesn't look too good I may have them move it up a little bit. But I'm not going to tell them too much other than "put it in the middle," and then I might adjust it just slightly. And then, blow air through the mouthpiece. So they'll blow

JD 2.6.2.1
T:EM:SM

JD 2.6.2.2
T:EM:SM

JD 2.6.2.3
T:EM:NT

air through the mouthpiece. Now, tighten the lips a little bit more, and they'll blow air through the mouthpiece. And at some point—you may have to do it three or four times—but those lips are going to be vibrating. And that's the embouchure. Then you're looking to make sure that the

JD 2.6.2.4
T:EM:SM

chin doesn't bunch up—if it's looking like a peach pit, you've got problems. Or if you're smiling and the corners of the lips have changed

JD 2.6.2.5
T:EM:SM

from their normal state, then you've got problems. But it's so simple. It's just like tonguing, to get back to that issue. We tell students in the educational process—it seems to me that we've told them too long—that what you do is you use a "tee" syllable when you marcato tongue; you use

JD 2.6.2.6
T:A:S

a "dee" syllable when you legato tongue. And I don't know any professional players that use a "dee" syllable when they legato tongue. Buddy Baker used to say, "tonguing comes in ten gradations." One is the least, ten is the most. And he could tell a student "give me a seven" or "give me a three." Now as far as I'm concerned, there are three basic

JD 2.6.2.7
T:A:S

tongue syllables that we use. One's the "tee" for the strongest articulation; the "dee" syllable is kind of the intermediate. Most trombone players I know use either an "n" syllable or an "l" syllable when they are trying to play as legato as possible—I personally prefer the "n" syllable. But why on earth we can't get the Belwin Band Builder to say any of that is beyond me.

- **How do you develop endurance in your students?** Endurance I think is developed by a variety of means, (pauses) or can be. First of all, as a

JD 2.6.3.1
T:EN:TSP
general principle, endurance is—as you go for whatever distance today, go slightly longer than that tomorrow. That's just basically a general principle that needs to be applied. So, the length (emphasis) of practice can be one means by which you increase endurance…certainly the demands in the practice. Another great thing to do is (pauses) take Borgogni vocalises and if the student's able, have the student play them in tenor clef. Then instead of stopping when you get tired, switch to bass clef. Then continue to play, and if you're feeling better, switch it back to tenor clef—but continue to play. So that's one of the general principles that has to be applied, I think, in developing endurance. (quickly) One of the best endurance exercises that I've ever used is the Carmine Caruso method. I think that's very effective. Apparently he used that with a lot of brass players to extend the upper registers. I think it's effective in doing that, but for me the effectiveness of that is more in the development of endurance than anything else, and I know quite a few players who have used that accordingly.

JD 2.6.3.2
T:EN:D

JD 2.6.3.3
T:EN:D

JD 2.6.3.4
T:EN:D

JD 2.6.3.5
Ph:CIC:MTS

- **Musicianship Issues**
  - **Rhythm**
    - **Please describe how you develop students' rhythmic sense and feel.**

      Basically, if a student has rhythmic problems—rhythm and ear are fundamental issues (laughs ruefully). Sometimes students come in and they have rhythmic issues and problems and sometimes they can be very difficult to address. What I basically tend to do is—students that have

JD 3.1.1.1 M:R:S
JD 3.1.1.2 M:R:UM:HU
JD 3.1.1.3 M:R:SC
JD 3.1.1.4 M:R:S

rhythm problems have problems primarily with the subdivision of the pulse. So I will give them an exercise where they turn the metronome on somewhere between 60 and 72 and they'll start with a measure of 4/4 time, and they'll play four quarter notes. Then they'll move that to four beats of eighth notes, then four beats of triplets, four beats of sixteenths, four of quintuplets, and then four of sextuplets, and then come back. And when they get to the point that they can make those shifts smoothly and easily, then we'll move that to a measure of 3/4 (emphasis), and then a measure of 2/4, and then 1/4. That has them—every beat—they're having to change a subdivision. Then sometimes we'll have them go from one to three to two to four to whatever. So that gives the student practice just on isolating nothing but rhythm; practice with that manipulation of the subdivision, which is what they have to be aware of and do when they encounter something in a solo or etude that involves a hemiola or whatever else may be causing problems.

- **Do you stress the use of a metronome in your teaching?** (definitively)

JD 3.1.2.1 M:R:UM:HU

Absolutely, absolutely.

- **Sightreading**
  - **Please describe the role developing students' sightreading plays in a typical lesson and what strategies and method books you would use to develop this concept.**

JD 3.2.1.1 Ph:HI:OC

I think a student's ability to sightread is obviously very important. As far as what we do specifically in lessons, that depends. At Florida State, the student has a sightreading component that they have

to pass. From their sophomore level jury to their junior level jury, if they don't pass it, then they have to come back until they pass it or they never graduate from the College of Music. So, it's a very important issue and

JD 3.2.1.2
M:SR:PWS

depending on the student, I like to read duets and if the student (pauses) can keep up and do a very good job, then I know their abilities are good and I encourage them to continue to do some sightreading on a daily basis. But (pauses) that's something that doesn't become a critical issue for them…the ones that have problems, we talk and I'll encourage them to find the Lafosse *School of Sightreading*. I think it's an extremely

JD 3.2.1.3
M:SR:SC

(emphasis) good progression of books, although I don't think God could sightread the fifth book (laughs). But he's got excellent (emphasis)

JD 3.2.1.4
M:SR:SC

prefacing remarks, and I think that it's critical that everybody practice their sightreading in accordance to what he suggests. Basically, the emphasis of that is to look at the key signature, the time signature, and any

JD 3.2.1.5
M:R:UM:HU

temporal indication. Turn the metronome on—if you're using his method, at least—and you start. And no matter what happens, you never, ever stop. That's a problem with most of us; because we'll stop and we'll work something out when we encounter a problem. And that's practicing and

JD 3.2.1.6
M:SR:SC

not sightreading. So it's critical that you go through without stopping, and if you can't play it then just have your eyes follow the beats and catch back up when you can. When you finish, if you haven't played everything perfectly including dynamics, et cetera, then you get a chance to look through—but not practice—and then you try it again. And if you haven't

played it perfectly, one more time you get a chance to look through but not practice it, and then try it the third time. So, basically if people would practice their sightreading in accordance to that I think (pauses) that would be very beneficial.

- **Ensemble Performance**
  - **Do you stress chamber ensemble playing with your students (brass quintets, trombone quartets, duets)? If so, what specific skills are learned from these experiences?** Absolutely—(pauses) I think it's a critical facet of a student's experience. I mean, first of all, there are professional performing chamber ensembles out there, and literature specific to that I think is very valuable. So I think from that standpoint it's important. Secondly, at Florida State we also dictate that every instrumentalist here has two years of chamber ensemble experience. So they'll form brass quintets or trombone quartets depending upon the number of people that are available. (pauses) So, it's pretty obvious—if you're sitting in a band or a large ensemble and there's several playing per part, then your idea of balance, intonation, so on and so forth can be pretty skewed. It can be very problematic. Whereas in a chamber ensemble, musically you're forced to deal with issues of balance; and either you have to change in accordance with other people, or you have to learn the art of communication and talk to the other people about what needs to happen in order to get the ensemble in tune and in balance and everybody playing the same style. I think it puts you on the page musically, as opposed to

JD 3.3.1.1 Ph:HI

JD 3.3.1.2 M:EP:LF

JD 3.3.1.3 M:EP:TIC

sitting in the back of an ensemble and waiting for a conductor to tell you what to do.

- **Varying Styles**
  - **Is there a specific genre/style you stress in your teaching (orchestral, soloistic, jazz, commercial, etc.)?** Basically, I'm classical in approach and all that entails, which is primarily orchestral and solo. We have a jazz area and there's people that teach jazz, so I don't deal with that—and I'm happily not dealing with that, frankly. But having said that, I think to the extent that students take advantage of learning other kinds of styles…it's very important. So basically I'm orchestral and solo. **How much of what you teach do you think blends into other styles?** Well, I think that you take a look at Wynton Marsalis as—if you'll pardon the pun—a classical example of a person who is well grounded and founded in the fundamentals and basics, and can apply that to jazz in a way that (pauses) enhances what his abilities are. So, I think that every wise jazz musician would be well advised to study the classical side of their instrument.

JD 3.4.1.1
M:VS:TA:L

JD 3.4.1.2
Ph:HI:OC

JD 3.4.1.3
M:VS:IP:H

  - **How much importance do you attach to stylistic versatility in your students' playing?** Are you talking about being able to sit in an orchestra or sit in a jazz band and stand and solo in jazz? **Right.** Well, I think that to the extent that (pauses) you're versatile, it's extremely important. All things being equal, having more to offer is always better. I sometimes use the analogy of a shotgun versus a rifle. A shotgun's going to cover a very broad area, and if you're in (pauses, considers) the situation where you're

JD 3.4.2.1
M:VS:IP:H

a freelance artist, the more work the better—the more work you can do, the more you're going to get. On the other hand, the people that really make their mark in this world and whose names are known by all who play that instrument tend to be rifles—they do one thing and they have a genius at doing it, and they don't try to dabble in everything. So I make a point to my students to say "you need to do as much as you can and experience as much as you can and be as broad as you can," especially as an undergraduate. At some point, you may want to focus your efforts, and that's fine too. But (pauses) be as broad as possible as first at least.

JD 3.4.2.2
M:VS:IP:H

This concludes the interview. Thank you, Dr. Drew, for your participation in my research. May I have your permission to contact you again should the need for follow-up questions arise, and to authenticate the transcribed interview? Absolutely. **Thank you again. I will be in touch regarding the final document, and a complimentary copy will be sent to you when it is available. Is there anything further you would like to address, or any further concerns you have?**

Well—yeah. Actually, (pauses) this for me deals with the nuts and bolts of what it is I do. But this for me doesn't grab at the essence of what I feel that playing and teaching should be about. So I kind of visualize things in a triangle that has three components: the top of the triangle is another triangle that deals with concept. It's what fuels the vehicle and provides the direction or the compass for your guidance system—you're lost without a concept. This has to deal, in a more important way, than (pauses) the mechanics—the tonguing, the so on and so forth. I

JD 4.1.1
Ph:CIC

JD 4.1.2
Ph:CIC

JD 4.1.3
Ph:CIC

compartmentalize it as there's areas of fundamentals. (emphasis) These are the tires and the drivetrain, or the notes and the air. And that actually does the work of physically getting us from one point to another. Then I make a big deal (pitch rises) with my students about practice strategies,

JD 4.1.4
Ph:CIC

goals, standards—a musical value system which determines the efficiency of our practice and the quality of the experience. It either gets us there with style and class, or if the standards are lowered, it just gets us there. So I think a lot of my teaching focus really deals less with specifics than it

JD 4.1.5
Ph:CIC

does with the fundamentals that govern the specifics…and the values and the standards and "what's it all about." The air is the vehicle for the sound and the technique provides the notes, but it's all in the service of music.

JD 4.1.6
Ph:HI:TM

(quickly) I kind of tend to approach my teaching philosophy—you know, "what's the end result?" and "why is it important" and "what are your standards?" When it comes to values system—it's a big thing with me to

JD 4.1.7
Ph:HI:OC

emphasize establishing the positive. My students probably are sick (emphasis) of hearing me say, "you have to establish the positive." So I come from (pauses) the philosophy that you don't try to eliminate the negative in your teaching—this principle permeates my teaching from top to bottom. You can always (emphasis) find a way to make something right. You can slow down the tempo, you can take it down the octave…but it's positive repetition. (as an aside) Students come in, as

JD 4.1.8
Ph:SI:P:E

you know, and they'll play a passage three times, and they'll miss it, and get it right the fourth time, and that's the way they practice it—I know

that's the way they practice it. Which means that they've done 75% negative reinforcement. I preach (emphasis) that gospel a lot. And I also talk a lot about the physical practice of the notes and how it's only 50% of what's important. The mental aspect, the focus, the concentration, (pauses) the dealing with performance anxiety—the other half. And so I think that for me as a teacher, I'm more concerned with those aspects than I am the nuts and bolts and mechanics of what happens. (long pause) I tend not to say so much to a student…(as an example) a student's played a passage, and the passage—it's really not what it needed to be. Now, you can handle it a lot of ways; and you can talk about the dynamic fluctuation and you can talk about whatever else. But as often as not, especially if the student is a good musician, I'll talk about the student's standards. If you're willing to accept that kind of performance, then where do you draw the line? When is it not (emphasis) acceptable? And so I tend to look at that in terms of the way I get to a student—get the student's attention and motivate the student—and not talk so much about, "this note was this, and this note needs to be that." Obviously, a lot of that has to go on, but I try to keep that (pauses) to a minimum in focus of my teaching. So, I felt it necessary to say—all of what you're doing with this is great because it deals with everything that we do. And I think you've been very thorough with that. But for me, I think it's also important that…(pauses) I talk to students about self-evaluation. You've got to honestly examine yourself and see who you are. Record yourself, listen to others, and setting goals

JD 4.1.9
Ph:SI:P:M

JD 4.1.10
Ph:HI:SS

JD 4.1.11
Ph:CIC

JD 4.1.12
Ph:HI:SS

and establishing your expectations—the higher the better. A discipline and a plan (emphasis) for getting your steps going along the way, and then

JD 4.1.13
Ph:CIC

when you've got everything in order, you go to work (emphasis with higher pitch). So for me I tend to really push that down a student's throat, and not so much the mechanics of the horn.

Can I pin you down with a generalization and say that your focus is not necessarily to produce trombonists, but to produce musicians whose musical medium happens to be the trombone?

JD 4.1.14
Ph:HI:TM

Absolutely. And from the first standpoint, look at our mission here. I mean, how many more Joe Alessis and Nitzan Harozs and Christian Lindbergs is the musical world and the world in general able to absorb? (pitch rises to end of sentence) So, from a practical standpoint, that's one consideration. And secondly, we have too many trombone

JD 4.1.15
Ph:HI:TM

players—we need more musicians playing trombone. Too many people put the focus no further than the bell of the instrument. It's not so much (pauses) what it sounds like and the effect that it has (emphasis), it's "did I get it right," "did I solve for x?" The essence of what's musical is what's

JD 4.1.16
Ph:CIC

important, and I think that's what needs to be taught. The means by which tends to take care of itself. When you make a person more aware, you've

JD 4.1.17
Ph:HI:SS

automatically elevated their standards to some extent. And then when they start seeing their ability level rise, and hopefully their standards will rise as well. We deal with so many people that go into music education, and every once in a while you'll hear a person say "well, I'm not going to

play (emphasis) the trombone, why do I have to have these kinds of standards?" And to me, it seems so obvious that my heart almost sinks any time I hear a person ask that question. I mean, you can't give something that you don't have and you can't share something that you've never experienced. So, I think that's (emphasis) what it's all about. I think that we as teachers of undergraduate students need to make students aware of how to produce a characteristic sound, and discern good musical direction. If we can do that, we're on the right track. And when we get too caught up in anything else, I think that we're serving the wrong master there.

JD 4.1.18 Ph:CIC

JD 4.1.19 Ph:CIC

JD 4.1.20 Ph:HI:TM

Again, my sincere appreciation for your participation in this research!

Appendix C

Transcribed Interview with Dr. John Marcellus

For documentation, please confirm your name. John Marcellus. **Thank you, Dr. Marcellus. My name is Matthew Buckmaster, and I am interviewing Dr. Marcellus for research for my dissertation entitled *Teaching strategies of successful college professors for undergraduate trombone students*. Dr. Marcellus, have you received and signed the informed consent document required by research regulations here at the University of South Florida?** Yes, I have. **And do I have your permission to record our interview today and use any data and information from it for research purposes?** Yes, you do. **Thank you so much for agreeing to participate in this research study.**

For your reference, these interview questions are addressed at the teaching strategies for undergraduate trombone students. Although it is understood that there is a wide array of ability levels among these students, please think of a "typical" or "average" undergraduate student when answering these interview questions. Also, please consider the context of these questions as being both in the individual lesson and outside the lesson in the student's own practice time. If any are unclear or need repeating, please feel free to stop me and ask for clarification. The entire interview should last no longer than one hour, and of course you may ask for a break at any time. If you're ready, we'll begin. Sure.

- **Philosophy of Playing/Teaching**
  - **Practice Philosophy**
    - **How much practice time do you recommend per day/week?** I think that it depends on what they're working on, but primarily, they must at the undergraduate level I think devote a minimum—and I would say this is a minimum—of two hours a day outside of any ensembles for their own individual practice. **How do you recommend distributing this time throughout the day/week?** Oh, sometimes everybody's schedule is so different; they'll have a class here or there, sometimes they may be relegated to practicing within a half an hour. If they break it up into different sections during the day I feel that's very helpful. But I think when you practice two hours in a row sometimes you don't accomplish as much as you would in thirty minutes sometimes working on one piece. **Would you say it's more the efficiency of practice than the actual amount of time?** I think that's a real good way to phrase it.

JM 1.1.1.1
Ph:SI:P:AT

JM 1.1.1.2
Ph:SI:P:AT

JM 1.1.1.3
Ph:SI:P:E

    - **How do you feel about mental practice (without the trombone)?** (hesitating) Oh, I think it's very helpful (pitch declining). Before (pause) performance to go through your parts you have to practice, mentally…but as far as "mental practice?" (emphasis)…I think the practicality of just performing is—for me—that's what I focus on. Not so much sitting down in a chair and practicing; however, at the same time to know exactly what you're going to practice I think requires some kind of mental concept about what you are beginning to study at the moment. Like an overview

JM 1.1.2.1
Ph:SI:P:M:V

JM 1.1.2.3
Ph:HI

JM 1.1.2.4 Ph:SI:P:M: SP

of say, a concerto. It's very good to spend some time with a score or with a piano and say, well, I want to study this concerto so here's my mental practice without the trombone. I will do that on occasion. (as an afterthought) But I don't think there's a real heavy influence that way to do it.

- **Etude/Method Books/Technology Utilized**
  - **What etude books do you use most in your teaching?** The vocalises of Bordogni. **Can you say that those stand out from the rest in your teaching?** Oh, yes. (pause) **Mostly volume one, or all three?...** Well, all volumes. Particularly the last two years of school volume three is so helpful. **Are there any other method/etude books that you emphasize in your teaching?** Yes, the French and the legato studies, and of course the Blazevich with the early students and then the French studies—the Bitsch, the Bozza and the Masson.

JM 1.2.1.1 Ph:SI:EMB: T

JM 1.2.1.2 Ph:SI:EMB: T

  - **When you use method books, do you mostly use them to teach a single concept (i.e., legato tongue, tenor clef, lip slurs), a combination of concepts, or both?** Well, a combination of everything because the etudes are really what they are—a study in the music. When you have compositions by various composers you run into styles, but you're running into also technical aspects of (pause) articulations and (pause) combining articulation with detached playing and legato. **Why do you combine concepts in that way when you're teaching?** Well, all music comes from the same way. (chuckles) Music is made up of melodies which is

JM 1.2.2.1 Ph:CIC:MTS

JM 1.2.2.2 Ph:CIC:MTS scales, arpeggios, and the various articulations which go along with that to be distinct. So, I guess I make combinations. Also, some earlier books

JM 1.2.2.3 Ph:SI:EMB:T including the Charles Stacy—I forgot to mention that as one of the etudes—he has a real basic two volumes of Charles Stacy; and also the lip drills in a separate volume. (pauses) That ends up being kind of the equivalent of what the Arban's book was for trumpet players. Stacy, of course, was the one person that codified what people like Arthur Pryor were playing and studying and performing in the early part of the 19th century. So those etudes I think are very valuable as a foundation.

- **Do you use any technology/software regularly in your teaching methods (i.e., Vivace, Smart Music, Band-in-a-Box, etc.)?** Yes, I use

JM 1.2.3.1 Ph:SI:TS:HU Smart Music. Some of the solo literature, I find Smart Music very helpful. Particularly when you study the Sulek Sonata a student can begin to learn the piano part apart from playing and wasting the time of a piano player in a first rehearsal—by knowing how the trombone part fits into the piano

JM 1.2.3.2 Ph:SI:TS:HU part. Smart Music I think is very valuable. Also, even with the vocalises to be able to have the student match the pitch and intonation of the tempered scale of the piano—I'll have them play in unison with a keyboard. (pauses) Smart Music is very, very helpful. (pauses) I use

JM 1.2.3.3 Ph:SI:TS:HU Band-in-a-Box also—more for my own individual playing—but if somebody is studying learning how to improv I'll introduce them to Band-in-a-Box. Also, some of the other play-a-longs of the Schwartz

vocalises—the Bordogni. **That's the audio CD?** Yes. Very helpful, in order to play along with the keyboard.

- **Warm-ups/Daily Routine**
  - **Describe the daily routine/warm-up you recommend to your students, including the fundamentals and concepts you stress, etude/method books used, and amount of time for the entire routine.** Basically, it's a point of departure from the Remington warm-up routine that I ended up studying with Lewis Van Haney. In that particular warm-up there's a lot to study about breathing and about rhythm and about connecting the various registers with the lip slurs. (pauses) It really includes a lot of the real basics of what I say even starting a tone with a brass instrument without the use of the tongue involved at all. Lately, I've been focusing more on just starting the long tone series with a series of no attack. (pauses) That was different than what I did with Van Haney, which was specifically using the long tones to become consistent in the initial beginning of the note that you're playing. I feel like it's fundamental that the embouchure is a direct result of your blowing mechanism, it's not a result of talking about embouchure as it is a direct result of the way you blow. So when you use no attack, it really helps I think get the foundation for an embouchure that works (pitch rises) and it's ready to go. So I use that in the warm-up, as of lately. Because I've seen so many people that have run into problems with this focal dystonia and many other things related to the embouchure that coming back to this real fundamental is

JM 1.3.1.1 Ph:WR:ST:R

JM 1.3.1.2 Ph:WR:F

JM 1.3.1.3 T:EM:NT

JM 1.3.1.4 T:EM:NT

JM 1.3.1.5 Ph:WR:F

very important. Also, even to use this no attack in the vocalises—I use that also…no attack on the entrance note of the phrase and after you take a breath. **Does everything else from the routine come from those basic Remington-type long tones?** (definitively) Yes. That and the lip slurs, and of course the scales also which are then expounded with the Charles Stacy scales—they definitely work well.

JM 1.3.1.6
Ph:CIC:MTS

- **Do you advocate mouthpiece buzzing to your students?** (hesitatingly) Yes, but I try to explain the difference of what happens when they play the instrument. The embouchure doesn't function the same way as buzzing into the mouthpiece. This I show to them by having them play a middle Bb and pull the mouthpiece out and the lips are then not activated; but if they blow air much faster, they can activate the lips for that middle Bb. When they activate that middle Bb with the buzzing, and I ask them to put it back in the instrument, they find out they're already playing fortissimo. (chuckles) But I try to point out to them that the embouchure does not work the same as buzzing; however, if they can solfege any piece on the mouthpiece, they're bound to be better at playing the piece of music that they're attempting. (chuckles) **So do you use mouthpiece buzzing mostly as a musical device—for instance, buzzing a Bordogni etude to get the music in your students' heads?** (strongly) Yes! It's the same as an interval—put it on the mouthpiece. Absolutely. Then they begin to realize there's a relationship between the mind and the pitch perception and the production of it. It's a big help for ear development. **Regarding**

JM 1.3.2.1
Ph:WR:MB:
LU

JM 1.3.2.2
Ph:HI:TM

JM 1.3.2.3
T:I:SA:ET

what Adams says about this issue for trumpet performance, do you think the lips actually "buzz" when you are actually performing on the trombone, or is it more of a vibration? I was just doing some reading on that—Benade. I think here's something a lot of us teachers don't do enough of; is to talk about the acoustics of the instrument. The studies by Benade are really so very helpful. I think if students begin to be introduced to some of the literature about acoustics, that the lips are really sucked apart by the action of the air passing through the rim. It's a little bit related to Bernoulli's principle—the law in physics. So, for me another way to describe in a layman's term is that, yes, the lips vibrate, but the vibrations are…(hesitates) they are activated by putting the mouthpiece back into the instrument. The tube that you're blowing into activates the lips, so they oscillate, I guess is a better way to term it. Rather than to say they're vibrating—they're vibrating to a certain extent, and then when you play on the mouthpiece you can use a lot of air to make the amplitude louder. (pauses) So learning how to be efficient is the whole idea of working with the mouthpiece and trying to figure out the relationship of the air and the embouchure and the support mechanism behind all of those three units.

JM 1.3.2.4
Ph:HI:OC

JM 1.3.2.5
Ph:HI:OC

- **So you say that essentially your routine/warm-up is in the tradition of Remington?** Yes. **How have you altered it to fit your teaching needs, if at all?** (pauses, considering) Well, not to a great extent. I use the routine more for the first two years and then I allow the students really to

JM 1.3.3.1
Ph:WR:ST:R

develop their own routine that seems to help prepare themselves at the beginning of the day to play their instrument. (pauses) I try to give them enough of a feeling about a warm-up routine that it's giving them some

JM 1.3.3.2
Ph:WR:II

tools to use but then they will develop on their own and learn on their own what they really need to do. But you still (laughing while speaking) point them in the right direction as well…you should cover a certain amount of

JM 1.3.3.3
Ph:WR:F

breathing, a certain amount of flexibility, a certain amount of being loose, being warmed up. But to not really be dependent upon a 45-minute warm-up in order to play. (pauses) (as an aside) It's kind of hard (laughing while

JM 1.3.3.4
Ph:CIC:MTS

speaking) to answer some of these because everything is so intertwined into how one teaches, you know.

- **Technique Issues**
  - **Breathing/Air Control**
    - **Please describe how you address breathing in your teaching strategies.**

JM 2.1.1.1
T:B:PC

It's just that the breathing process; students need to understand it that the air goes into the lungs and it must be done as efficiently as possible. (pauses) Um…(exasperated exhalation) it's really difficult to kind of say that I have a specific way "you must do this and you must inhale your air over five seconds on this one and you must inhale your air over seven

JM 2.1.1.2
T:B:RE

seconds"….I do a little (emphasis) bit of that to kind of have them understand it, but when they're on the instrument it becomes another ball game where the breathing is intertwined into the music. (pauses) **So the breath is essentially just a mechanism for the music?** Absolutely—to

not put so much emphasis on the technique of breathing as it is (pauses) think about what you want to play and what kind of style you're going to play in. (quickly) If you're going to play *Tannhauser*, you're going to have to learn how to take in a great quantity of air and learn how to sustain it. So what I'm saying I guess is I will talk about the breathing process depending on what kind of pieces that my students are working on. I don't have a specific, like, breathing exercise for this or that. No.

JM 2.1.1.3
T:B:PB

- **When you do speak of breathing for a specific piece, do you approach it more physically, as in speaking of air flow and anatomy, or more conceptually, as in a more musical approach to a phrase or song?** Well, the analogy is if you're a singer, you always have the voice that is singing through a melody. Then the analogy with the string player is that there's a bow that activates the string and you have to keep that bow on the string in order to do that. The analogy here is the breath is the one that maintains the oscillation of the lips (emphasis in pitch), and there has to become—when you talk about musical phrasing—how you keep enough air within each phrase to do it. So if you try to play it at a loud dynamic, it's impossible sometimes to make a musical phrasing. So, (pauses) what I say is that breathing and breath control is all related to the phrasing of the music that you have to play, and that the dynamics of that music becomes relative in order to accomplish your musical result.

JM 2.1.2.1
T:B:RE

JM 2.1.2.2
T:B:PB

- **Slide Technique**
  - **Describe how you would teach proper slide technique to your students, including alternate positions and valve combinations.** I try to encourage them to investigate (emphasizing) every possible alternate position they can. One reason for that is matching intonation, and also matching the resistance of the instrument when you play…(pauses) when you play *Bolero*, to be able to play a high Bb in 3rd position and 5th position and in 7th position, and to maintain that over the same length that *Bolero* is played, teaches you a great deal using alternate positions and using your support mechanism to maintain the same pitch. So I kind of throw alternates out there in the same manner as (pauses) a lot of support mechanism—breathing (laughs). **Is this another multi-conceptual area where you stress intonation and sound concepts as well?** Yes, absolutely. And the most important thing about slide technique is for students to be aware of what goes on with the right arm. (pauses) That the wrist in involved in the process, and that the shoulder sometimes gets to be involved a little bit too much, and that ends up to make a lousy kind of legato, when you have a very poor slide technique. And with slide technique also, the way you hold and manipulate the slide is an important one too. But the concept of even placing one's elbow on your knee and playing a C major scale tells you a lot (emphasis) of how you isolate your shoulder and keep it still, yet you still can use your wrist and forearm to

JM 2.2.1.1 T:ST:AP:HU
JM 2.2.1.2 T:I:SA:ET
JM 2.2.1.3 Ph:CIC:MTS
JM 2.2.1.4 T:ST:SC
JM 2.2.1.5 T:ST:SC

play a C major scale. It's a real good indication of efficient slide technique.

- **Intonation**
  - **How do you approach teaching students to play in tune on the trombone?** Well, first of all, if you can't sing it in tune, you're not probably going to play it in tune. Not that the voice needs to be (pauses) a thousand percent accurate—everybody has a certain (pauses) sense of singing. But to me the intonation—the hardest thing to do is for a student to internalize and to know what pitches they're going to play, and if they can't envision it in their minds…some people say that you must hear the note before you play, I agree one hundred percent with that, so I do a lot of having the student begin to predict (emphasis) where the next note comes with intonation. And that's just your acuity of getting them to listen to—(quickly) if they're in an ensemble, that's one thing, and have something to tune up to, but when they're by themselves on a solo audition, they don't have anything to establish this intonation. So there must become a way that the ear begins to almost memorize where you go for a whole step, and where you go for the half step. And in particular how you define the tritones. (slowly) We find out that intonation problems of course come from not even being aware of the difference in volume (emphasis)—that when you play louder, it's much harder to control pitch, so I try to teach intonation in this respect too: play it very softly and you'll probably play it right. And then be careful when you play louder, that you still maintain

JM 2.3.1.1 T:I:SA

JM 2.3.1.2 T:I:SA:ET

JM 2.3.1.3 T:I:SA:ET

JM 2.3.1.4 T:I:SA:VC

the same integrity of intervals. **You've stressed intervals more than once now; is that an emphasis in your teaching as well?** Well, absolutely, yeah. (matter-of-fact) See, that's what music is made up of. (laughs)

JM 2.3.1.5
Ph:HI

- **Do you stress the use of an electronic tuner in your teaching?** To a certain extent. Yeah, I say use the tuner to know where you should be at, but be able to play that note and then play it on the tuner and check yourself out—well, did you really guess right at it?...then, play it on your mouthpiece. Then put the tuner on—how close were you to it? So you begin this matching pitches—is really the key to it—but predicting, before you try to play something, predicting where it's going to be.

JM 2.3.2.1
T:I:UT:LU

JM 2.3.2.2
T:I:SA:ET

- **Are there specific exercises or etudes you use to help your students with intonation?** No, I don't use that; I tell them about the intonation thing so they're aware of the two different kinds of tuning we have to deal with. (quickly) The instrumental tuning and then also the tuning on the tempered scale with the piano when we play solos or when we play auditions. (pauses) And I tell them about—and I leave it up to them, I don't say, "OK, here's your boot camp for intonation"—I'll point out sometimes in the lesson with various intervals together for them to hear beats, so we'll develop an intonation awareness in that respect too.

JM 2.3.3.1
T:I:SA

JM 2.3.3.2
T:I:SA:PO

- **Articulation**
  - **Do you teach articulations syllabically (i.e. "tah", "doh", "too-koo")? If so, please describe the syllables and when they are appropriate**

when playing. Well, (hesitates) I try to say that students must define an initial attack, and I use the word "tee" in order to do that. And there is then the softer "dee". I use a little bit of the syllables in the various registers, more "e" for the upper register and "o" for the lower register. I don't have particular strategies (emphasizes) for tonguing style other than to use a legato as a model or using the long tone as your model. That of course comes back to the warm-up series too. With the use of long tones, to use the model of the sound of the long tone to teach how to repeat a soft "dee" attack—the legato tongue. And that becomes consistent. Then the same thing is to use long tones and to begin to use "tee"…the "tah" approach. But maintaining this ability to remember the sound of the long tones—the sound of the quick notes must have the same quality. That becomes the hardest thing to deal with in articulation.

JM 2.4.1.1
T:A:S:LU

JM 2.4.2.1
T:A:SC

JM 2.4.2.2
Ph:CIC:MTS

JM 2.4.2.3
T:A:PB

- **Are there specific exercises or etudes you use to help your students with articulation on the trombone?** Yes, the Gaetke studies. They're the German—going through the overtone series so you're not moving the slide; it's more the open harmonic series. But to use those in combinations of slurring…(suddenly recalls) well, also I use the warm-up—the lip slurs. (sings—see Appendix E, "Marcellus #1") So I'll use the warm-up plus books like the Charles Stacy book for articulation (pauses), and the Gaetke studies. And the Gaetke studies as I said are all in one position at various speeds. **As a follow-up, I noticed you haven't mentioned the Arban's book much. Do you not use that as often?**

JM 2.4.3.1
T:A:SC

JM 2.4.3.2
T:A:SC

JM 2.4.3.3 Ph:SI:EMB (assertively) No, I don't. But I've found the early basic stuff in Charles Stacy makes it even more (pauses) obvious for trombone players what they need to do; yet, some students—if I feel like they are not grounded enough I will give them the Arban book because I've got a lot of choices of materials to choose from to study (pauses)…articulation, or various things. (as an afterthought) I use it, but not to a great deal.

- **Sound and Tone Quality**
  - **Please describe how you teach sound/tone concept to your students.**

JM 2.5.1.1 T:STQ:L Well, I tell them sound is your best asset (chuckles). One way to do that is to emulate and to listen to players, and you figure out, "well, what makes a good sound." I encourage them to listen to a variety of players. (pauses)

JM 2.5.1.2 T:STQ:SA And also the ability to hear actually what's coming out the end of their bell, and to help them realize when the sound quality is not good, what's the reason for it? It's probably because sometimes good tone quality is

JM 2.5.1.3 Ph:CIC:MTS characterized by good intonation; bad tone quality is characterized by bad intonation (chuckles). So I try to go back and forth between trying to help them realize "well, your sound is not so good, but it's because you're out

JM 2.5.1.4 T:I:TI of tune." So to focus more on the centering of the sound. To have them

JM 2.5.1.5 T:I:UT:HU play above a note and below a note and try to find where the center of that note is. Then they check it out with a tuner…Smart Music is the best

JM 2.5.1.6 Ph:SI:TS:HU tuner that I've ever used. That tuning system with the linear tuning is so great, I think. The students can really see graphically how (laughing while

JM 2.5.1.7 T:STQ:SA speaking) far they are off the pitch. Using this kind of thing to help focus

their tone—(pauses) they can focus more with the linear tuner in Smart Music to come to a quality of sound that just is right on the money.

- **How important is listening to recordings and live performances to this concept?** Oh, I try to tell them to go to everything, and listen to as many recordings as they can. And to realize that all those recordings you hear are done by various individuals, and they all sound different and the most important thing is that you have a sense of developing your own sense of your own sound of the way you want to sound. Do you want to sound like Bill Watrous or you want to sound like Sy Zentner, you know? (laughs) I try to have them listen to jazz players: Jack Jenny, Tommy Dorsey among others. Some wonderful trombone players to use to emulate a great quality of sound.

JM 2.5.2.1
T:STQ:L:R

JM 2.5.2.2
T:STQ:L

- **Range and Endurance**
  - **Please describe the teaching strategies you use to develop your students' range/register.** I use primarily the Remington (pauses) arpeggio that he put in his…(sings—see Appendix E, "Marcellus #2) But I've gone a little bit further with that in combination of using a glissando with the use of ascending. Glissandoing into each harmonic series and gliding upward. Then to switch harmonic series but play the same notes in the alternate positions. So I use primarily the Remington in the upper register, whether it's slurred or whether it's tongued.

JM 2.6.1.1
Ph:WR:ST:R

JM 2.6.1.2
T:RR:UP

JM 2.6.1.3
T:ST:AP:HU

  - **What is your teaching philosophy regarding embouchure development?** Well, I try not to talk about it. (laughs) Oh, I will just say

JM 2.6.2.1
T:B:RE

the embouchure is a direct result of the way you blow. And the way you blow down through the harmonic series when you're on a lip slur—if you do that on your mouthpiece, you'll find out you'll glide down with very little motion from the embouchure at all (pitch rises). So when you're on the instrument—when the resistance of the instrument comes back to you—you back off of the air supply and all of the sudden there's a bump and your face starts to bounce around rather than blending through the way it needs to happen.

- **How do you develop endurance in your students?** Just by saying, "if you want to play up there, you must stay (emphasis) up there!" (chuckles) To make them really aware that they can only practice in the upper register and put a stress on the muscles so much every day; so upper register—the extensions I use, I say "don't practice this more than ten minutes a day, and practice it every other day." It seems to help relieve the stress of the upper register that way, gradually building endurance that way. If some student somehow or other cannot (pauses) play in the upper register, I will take an upper register note, like say a B natural in 7th position and say "OK, slur up to E," and then move that E back to 5th position and back to 7th, and the E goes up to (pauses) say a C natural, using the harmonic series. And then say "well, you're already up to a high C, and how did you get there?" You just didn't move the slide. So all of a sudden they realize what the other aspect of playing in the upper register is all about, and that's the support mechanism.

JM 2.6.3.1
T:EN:TSP

JM 2.6.3.2
T:EN:D

JM 2.6.3.3
T:RR:UP

JM 2.6.3.4
T:RR:RA

- **Musicianship Issues**
  - **Rhythm**
    - **Please describe how you develop students' rhythmic sense and feel.** Yes, this is a very difficult thing to try to get across. We have the solo auditions nowadays for orchestras and the first two things—rhythm and intonation—that disqualify everybody. I try to emphasize with rhythm that the breathing mechanism must be so intertwined with their sense of rhythm that their breath can actually become a kind of a checkmark for playing in rhythm. The other thing is to have a sense of where the primary beat is in a phrase, where the secondary beat is, and to think—well, Mozart's *Requiem* is a good example—is to have a feel of the half note beat (emphasis) to it, and that that's always a hundred percent. And there's some students that don't play in marching bands nowadays; they come in, they sometimes have more problems with rhythm than some other people—I mean, the people from marching band don't have rhythm problems. Because there's a certain coordination that the body goes through. That this concept of (pauses) primary beat and secondary beat is a real important one, I feel, with rhythm.

JM 3.1.1.1
T:B:RE

JM 3.1.1.2
M:R:APSB

JM 3.1.1.3
M:R:RMB

JM 3.1.1.4
M:R:APSB

    - **Do you stress the use of a metronome in your teaching?** I use the metronome very much in the lessons and in the practice room, but I always try to tell them you must lead (emphasis) the metronome, and you must be able to even turn that metronome off and be able to become (laughing while speaking) very metronomic in your playing. One way to

JM 3.1.2.1
M:R:UM:HU

JM 3.1.2.2
M:R:S

do that is put a metronome in a corner with a microphone and play one of the orchestral excepts with the metronome clicking right next to the microphone, then listen to the playback—it's very revealing. Particularly *Hungarian March*! (laughs) **So when you're playing in this strategy, the student can't actually hear the metronome while playing?** Yes. You really hear it in the playback; where you are with the pulse. But to gain this sense of pulse (emphasis) is a very difficult thing I think for some students. I think of it as keeping track of a larger beat helps you keep track of the smaller beat. An excerpt like *William Tell* is a good example: that quasi-chromatic music comes in groups of half notes. (sings a series of eleven detached eighth notes, accenting the notes that fall on the large beats: the fourth, eighth, and twelfth notes) But that last phrase ends up to be almost a feeling of four quarter notes. So that's one good way to remind yourself how you keep steady with a phrase. Also, stressing when they have a long note, if they're not really subdividing in their mind, they're going to be late whenever they take a breath. **You've mentioned orchestral excerpts more than once—are they an integral part of your teaching?** Yes, I use them a lot in my (pauses) studio. **Would you say that's a part of the daily lesson?** (emphatically) Oh, yes. Oh, for sure. (pauses) When I gave a lecture over in Paris, at the colloquium over there, they were surprised that my entire presentation was using trombone excerpts as the demonstration pieces, because of course they use the concertos as their demonstration pieces.

JM 3.1.2.3 M:R:SC

JM 3.1.2.4 M:R:S

JM 3.1.2.5 T:B:RE

JM 3.1.2.6 Ph:CIC

- **Sightreading**
  - **Please describe the role developing students' sightreading plays in a typical lesson and what strategies and method books you would use to develop this concept.** (hesitates) The sightreading that we do in my studio is more with the duets, where I try to focus on helping them through when you have to play a piece that you haven't seen before and here's some of the things you need to consider. (quickly) I do it mostly through duet studies. I don't use books like the sightreading book published by Leduc. More in the sense of (pauses) playing duets with the students, and also in trombone ensemble, which is another carryover into the sightreading. We're constantly reading new pieces, so I think that experience is a great one to make sure that every rehearsal has some new sightreading material to it. But I don't have any specific method books. But a good example, I tell students, if (emphasis) they have to play an audition for a military band and they're going to have sightreading, go to the library and pick out fifteen marches and sightread them. Because you're going to be….(laughs) at least it will help prepare them. And the other thing about sightreading…here's where even taking the characteristic studies in the Arban book—and that's where I would use this—is to say, "you know, if you want to work on sightreading, go through these pieces and start to turn the pages on them."

JM 3.2.1.1
M:SR:PWS

JM 3.2.1.2
M:EP:TIC

JM 3.2.1.3
M:SR:SC

JM 3.2.1.4
M:SR:SC

- **Ensemble Performance**
  - **You mentioned trombone ensemble. Do you stress chamber ensemble playing with your students? If so, what specific skills are learned from these experiences?** Well, the trombone choir is a big thing at the Eastman School, which gives me a chance to see how everybody operates in a performance situation. But I encourage them to play in any ensembles at school, particularly the variety of styles they can be exposed to, such as a brass quintet, or whether it's trombone quartet, trombone trio, (pauses) jazz ensemble. I think all of these experiences with the ensembles is the basic training of what they need to do once they're leaving the school. They're going to play with ensembles, and they've got to learn how to work and to adapt with the people that are in the group. In particular, here's where you come to musical personalities—particularly when you're with a brass quintet—sometimes you don't always get people that are compatible (emphasis), but they have to learn how to make music together. So it's very good learning for them, in any (emphasis) ensemble.

JM 3.3.1.1 M:EP:TIC

JM 3.3.1.2 M:VS:IP:H

JM 3.3.1.3 M:EP:TIC

JM 3.3.1.4 M:EP:TIC

- **Varying Styles**
  - **Is there a specific genre/style you stress in your teaching (orchestral, soloistic, jazz, commercial, etc.)?** Well, I try basically to have all my students understand how to operate the trombone at its most efficient level. And then in the process, they're able to use that same efficiency in playing, no matter what style it is. Another thing is that relaxation is the common thing; I think that between whether you play jazz or whether you

JM 3.4.1.1 Ph:HI:OC

JM 3.4.1.2 Ph:CIC

play in an orchestra, the only thing is the difference in the articulation and the different style that you have to deal with. So I don't specifically try to pinpoint anybody, but I try to say "where's your interest going; what do you plan on doing?" So if somebody comes and says, "I want to be a commercial jazz player," well, in the commercial world—really, I treat them all the same, trying to help them realize how to make the trombone work easily. **If a student said he or she wanted to be a jazz soloist, would you not use the orchestral excerpts that are so integral to your teaching?** No! (emphatically) No, I'd say, "here's something that you might study that you might incorporate into your jazz solo." Play *Bolero*!....and a commercial player, they've got to learn how to play *Bolero* just like the orchestral players do.

JM 3.4.1.3
M:VS:CG

JM 3.4.1.4
M:VS:CG

- **What importance do you attach to stylistic versatility in your students' playing?** Oh, to me I think that's the most important part of it—to maintain the flexibility and the versatility to perform in any style. And that takes a big openness and (pauses) exposing students to realize there's a lot of value in trying to keep yourself flexible enough so if somebody asks you to play a piece of music in an orchestra and to "play it this way." So then you're flexible enough to change. That flexibility is the key to everything in the music business; to always maintain that flexibility and the stylistic diversities that are out there.

JM 3.4.2.1
Ph:HI:OC

JM 3.4.2.2
M:VS:IP:H

JM 3.4.2.3
M:VS:IP:H

This concludes the interview. Thank you, Dr. Marcellus, for your participation in my research. May I have your permission to contact you again

should the need for follow-up questions arise, and to authenticate the transcribed interview? Certainly. **Thank you again. I will be in touch regarding the final document, and a complimentary copy will be sent to you when it is available. Is there anything further you would like to address, or any further concerns you have?** No, not that I can think of right now. **Again, my sincere appreciation for your participation in this research!**

Appendix D

Transcribed Interview with Mr. Curtis Olson

For documentation, please confirm your name. Curtis Olson. **Thank you, Mr. Olson. My name is Matthew Buckmaster, and I am interviewing Mr. Olson for research for my dissertation entitled *Teaching strategies of successful college professors for undergraduate trombone students*. Mr. Olson, have you received and signed the informed consent document required by research regulations here at the University of South Florida?** Yes. **And do I have your permission to record our interview today and use any data and information from it for research purposes?** Yes. **Thank you so much for agreeing to participate in this research study.**

For your reference, these interview questions are addressed at the teaching strategies for undergraduate trombone students. Although it is understood that there is a wide array of ability levels among these students, please think of a "typical" or "average" undergraduate student when answering these interview questions. Also, please consider the context of these questions as being both in the individual lesson and outside the lesson in the student's own practice time. If any are unclear or need repeating, please feel free to stop me and ask for clarification. The entire interview should last no longer than one hour, and of course you may ask for a break at any time. If you're ready, we'll begin. Sounds good.

- **Philosophy of Playing/Teaching**
  - **Practice Philosophy**
    - **How much practice time do you recommend per day/week? How do you recommend distributing this time throughout the day/week?** Well, I think it's important to practice quite a bit during each day in order to make progress each day. I think probably (pauses) three hours a day is a good amount to make to show significant progress. I was trained in the philosophy that if you practice three hours a day you make progress, if you practice two hours a day you stay the same, if you practice one hour a day you lose ground. And distributing those three hours a day…(pauses) I break it up into two segments: one in the morning and one afternoon or one morning and evening but definitely two different times so your chops can be fresh (emphasis) and so you can have a good warm-up in the morning and then have a good strong session later on.

CO 1.1.1.1
Ph:SI:P:AT

CO 1.1.1.2
Ph:SI:P:AT

    - **How do you feel about mental practice (without the trombone)?** I'm not sure what that means. **For instance, you could consider listening as an example of mental practice, perhaps. You could also use "air trombone": just doing positions on their own for practice on scales. Essentially mental practice is just to use your mind and not the instrument itself.** Oh, that's great. I learned how to do the Ab major scale with the Bb with the valve in sharp fourth in music theory class. (laughs) I learned how to coordinate that. I improved that interval: (sings two whole steps alternating rapidly such as using the F attachment for Ab

to Bb), by just visualizing it. I also watched the teacher so I wouldn't get in trouble, you know. **Is that something you recommend to your students?** If they don't get in trouble. (laughs) Absolutely, absolutely. If there's something going on that they need to be at and then they don't have to really focus so much or concentrate so much—absolutely, it's a great idea. You can really get the coordination down for certain difficult passages. If you're doing the end of the Franck in D minor on bass trombone where it goes (sings—see Appendix E, "Olson #1") you can coordinate your slide and the valve for the B-natural. And you can also learn slide positions that way. If you're typically sharp in third position or something like that you can practice getting it down a little bit farther, not much farther but a little bit. You can also practice (pauses) doing the third position pitch nuances; maybe a passage like Eb, F in fourth, and high Gb so you can find out where the differences are so you're making a slight difference from flat three to sharp three. Real tiny things, nuances that way I think. More craftsmanship than musicality there.

CO 1.1.2.2 Ph:SI:P:M:V

CO 1.1.2.3 T:I:TI

- **Etude/Method Books/Technology Utilized**
  - **What etude books do you use most in your teaching?** Mostly, with etude books I use three (high pitch emphasis). Every lesson is comprised of something from a clef, depending on the student's abilities: if they don't know tenor clef we do tenor, if they don't know alto we do alto. Sometimes we do mezzo soprano. (pauses) And for that I always use Blazevich. I also use the Rochut for clef studies. Doing it in tenor clef,

CO 1.2.1.1 Ph:SI:EMB:C

CO 1.2.1.2 Ph:SI:EMB:C

alto clef, bass clef down an octave, tenor clef down an octave, bass clef down two octaves, and tenor clef down two octaves. (chuckles) It works real well. I use Rochut for the legato, of course. I use only volume one because if you do it all in the different keys, different clefs—it takes a long time to get through it. So really for undergrads I hardly ever use any other volume—well, maybe one or two times I got to book two, but that's it. (laughs) Technique: I use Kopprasch, I use Rode *Caprices*, and Kreutzer—the violin studies. Very good for technique.

CO 1.2.1.3 Ph:SI:EMB: T

CO 1.2.1.4 Ph:SI:EMB: T

Can you say that there is one that stands out from the rest in your teaching? I do them differently. For the every day assignments: Kopprasch, and Blume as well. Especially Blume with the F attachment. In each student's daily routine I have them incorporate a Kreutzer etude, especially number one. I have them incorporate that into the routine to get some alternate positions going to get their slide moving fast and to get them tonguing fast and coordinating everything—so it's raw technique, memorized, "just do it" kind of thing. That's a daily routine part of it. So there's a number of ways of using those books.

CO 1.2.1.5 Ph:WR:II

CO 1.2.1.6 Ph:CIC:MTS

- **When you use these method books, do you mostly use them to teach a single concept or to combine the multiple concepts together?** I try to combine the concepts, but each book is designed for a specific purpose and each book I use for a designated purpose. (quickly) Legato is so important for trombone, clef is so important for trombone, and technique is so important for trombone—that said, the Blazevich is great for style

CO 1.2.2.1 Ph:CIC:MTS

CO 1.2.2.2 Ph:SI:EMB

and for (pauses) everything…basically style. The Rochut is—I should say Bordogni/Rochut—is so good for range practice in different keys and different clefs. And the Kreutzer or Rode or Kopprasch is good for articulation studies as well as technique, it's good for stylistic studies in some cases, it's good for range studies if you take those pieces in tenor clef sometimes which include bass clef, and take them down an octave—

CO 1.2.2.3
Ph:CIC:MTS

bass clef down two octaves for bass trombones. So each one of them has a specific focus but you can deviate from that focus a little bit. **How do the students benefit from combining these concepts in that way?** Well, ultimately when they play music: solos, excerpts, orchestra stuff, (pauses)

CO 1.2.2.4
Ph:CIC:MTS

band stuff, whatever. They have to combine all the different aspects of playing at once: articulation, and clef reading, and musicianship, and style. So it's always best to incorporate all those things at one time. But when

CO 1.2.2.5
Ph:HI:OC

you're learning (emphasis), if you need to you can focus on clef only. Forget the style, forget the exact pitch, you know, forget the exact articulation—just get the clef. But ultimately they have to bring them all into their playing. Who's going to sound good if they have just good articulation, and pitch is lousy, tone's lousy? (laughs) So, yes—they do have to all that together ultimately, and put them all together.

- **Do you use any technology/software regularly in your teaching methods (i.e., Vivace, Smart Music, Band-in-a-Box, etc.)?** No. (pauses, considering) For quite a while the trumpet teacher here, Rich

CO 1.2.3.1
Ph:SI:TS:LU

Illman, and I went around and did—not in lessons—but for clinics. We

had a synthesizer duo, and I programmed and he programmed into our synthesizers accompaniments and then we'd played along with them. So it'd be like piano accompaniments set to synthesizer sounds and, ah, students in high schools and elementary schools and middle schools—all three of those—loved what we did because the sounds were so unique. So, in that way I used technology, but Vivace and other things I have not used, no.

- **Warm-ups/Daily Routine**
  - **Describe the daily routine/warm-up you recommend to your students, including the fundamentals and concepts you stress, etude/method books used, and amount of time for the entire routine.** Well, I'm probably more adamant about a daily routine than anybody (laughs). Maybe that's good or bad, I don't know. (laughs) But I stress a daily routine that lasts about fifty-five minutes and is comprised of long tones, first of all in the mid range and then articulated quarter notes for very precise articulation and pitch: slow slurs, then fast slurs. And, like I said it takes fifty-five minutes and—concepts are fundamental every time. Start off with a good solid breath on the long first note—Bb, anything—and then good articulation, good slide position, good hand position. Both relaxation techniques, reasonable posture, breathing was always emphasized heavy, heavy, heavy. All the fundamentals of brass are taught and practiced in that daily routine. And at every lesson I teach, fully half of that lesson is devoted to that routine, to doing that routine. So if we

CO 1.3.1.1 Ph:WR:F
CO 1.3.1.2 Ph:SI:P:AT
CO 1.3.1.3 Ph:WR:F
CO 1.3.1.4 T:B:RE
CO 1.3.1.5 Ph:WR:F

have an hour lesson it's a half an hour of daily routine things to make sure that they're making progress on the basic concepts of brass playing. That last half hour is the Rochut, the Blazevich, the solos, whatever it is. So I'm probably more adamant about those things than most teachers. I grew up with the Chicago style of brass playing with Vincent Chicowitz being the (pause) main pedagogue and Bud Herseth being the example. And Edward Kleinhammer and Crisafulli and those guys—I grew up in that philosophy. I went to Eastman and I got a very good philosophy from Donald Knaub there. And that was just very successful for me and in my own playing and in my teaching as well.

CO 1.3.1.6 Ph:HI

CO 1.3.1.7 Ph:WR:ST:R

- **Do you advocate mouthpiece buzzing to your students?** I do, and that's in contrast to lots of teachers. I use it for specific things, mainly for centering notes. For me, in one hundred percent of the cases I could make a trombone player get a good sound right away by…first, if they didn't have a good sound. Like just playing *Damnation of Faust* (sings—see Appendix E, "Olson #2); just that much right there. If they have trouble sounding all the notes, not making pearls out of every note, I make them buzz it on the mouthpiece slowly then just a little bit faster, a little bit faster, a little bit faster. And we do that enough times that they would get it pretty accurate, then they put it on the horn—bingo, it's perfect. Every note was a pearl because the focus is now not on the pitch; they're really doing it themselves. (pauses) I would also stress two things on mouthpiece buzzing: you can't have pressure, so I would make them put

CO 1.3.2.1 Ph:WR: MB:HU

CO 1.3.2.2 T:STQ:MB

CO 1.3.2.3 Ph:WR: MB:HU

CO 1.3.2.4 Ph:WR:MB

their thumb in the crook of the mouthpiece where the cup meets the shank and then lift your fingers up (pauses), so you can't push too hard or it will fall off. So light pressure and then, also, the kind of sound on the mouthpiece is very important. It needs to be somewhat fuzzy, somewhat airy. It shouldn't be clear. If it's clear, it's tight, and it will train you to have a tight sound on the horn and that's the worst possible thing you can do. So, mouthpiece buzzing to me became an art form. (pauses) The kind of mouthpiece buzzing is really important— try to learn the right kind of mouthpiece buzzing. (as an aside) If you're going to play with mouthpieces…exactly what I was looking for all my life. (pauses) **That's in contrast to the other school of thought where mouthpiece buzzing can be harmful.** I've never found it harmful. I've had students play—like the *Damnation of Faust* as I told you—I've had them play and they take it off their mouth and they think "holy crap, what happened?" (laughs) They are just shocked. With horns and trumpets, too; when I do brass sectionals for the orchestra at MSU. I do the same thing here and they're just unbelievably shocked (pauses) at the difference in the sound. (quickly) I make them buzz it in brass choir situations and the sound of the group is instantly clarified, focused, and resonant. It's unbelievable. And in every case they're just shocked out of their mind. (short laugh)

CO 1.3.2.5
T:STQ:MB

CO 1.3.2.6
T:STQ:SA

CO 1.3.2.7
T:STQ:SA

- **Would you say your routine and warm-up is in the tradition of any specific school of thought?** Oh, yeah. Emory Remington through Donald Knaub. Yep. **Have you altered it to fit your teaching needs or**

CO 1.3.3.1
Ph:WR:ST:R

would you say that it's true to form? True to form. I thought that was the best possible program. Many people alter it on a daily basis, but my feeling is that it is kind of like calisthenics. (quickly) You have to be strong in these certain things; you sit down and really (emphasis) focus in on what needs to be done every day. Like if you're a football player, you need to do pushups, you need to do knee bends, you need to do whatever. Same thing with trombone playing: you identify in the quiet times what really needs to be accomplished every day and then write it out and then do it. And Remington did a great job and Knaub did it even better. (pauses and then laughs softly)

CO 1.3.3.2 Ph:HI:OC

CO 1.3.3.3 Ph:WR:ST:R

- **Technique Issues**
  - **Breathing/Air Control**
    - **Please describe how you address breathing in your teaching strategies.** How do I address it?...I address it every second (emphasis) of every lesson. Basically breathing is the most important aspect of every lesson. Partly because breath control…it's a wind instrument and breath is—the gasoline, if the analogy is the gasoline that powers the car—it's the force that powers the trombone. It makes everything (emphasis) happen. So I focus on breath all the time.

CO 2.1.1.1 Ph:CIC

CO 2.1.1.2 T:B:RE

CO 2.1.1.3 T:B:RE

    - **When you teach proper breathing on the trombone, do you approach it more physically, as in speaking of air flow and anatomy, or more conceptually, as in a cantabile approach to a phrase or song?** (pauses) Well! (laughs; considers) **Or a mixture?** (quickly in agreement) A

CO 2.1.2.1
T:B:PC

mixture, actually. The actual breathing process I address physically. Kind of like Arnold Jacobs, where you'd go to his clinic and he'd always talk about real specific things, then he'd say, "now when you play, forget it all. Just breathe and play." So that kind of thing. But (pauses) so getting air and getting it out is a purely physical process for me. Now, the production of tones is a whole lot different, that's a mental process and that (emphasis) is where you try to get resonance in the same fashion as a singer: get it into your head, get the sinuses breathing. I always feel that that tone goes backwards as well as frontwards and I found real success in having students create a hollow cavity in their chest and use that as a resonance chamber so that when they played, the resonance was a lot better. I learned that idea from Thomas Beversdorf when he came to MSU and he used it. It was fantastic. He said he could put a fifth on every student's range by doing this. I discovered I could help a student to realize an increase of a third, and the resonance and the tone were unbelievable. It cleared up a lot of problems because, basically what it did was loosen up the upper chest and the lower throat. It was fabulous, anyway—that was a very important aspect in my teaching. **So breath is something that you almost view as a concept that is addressed throughout the lesson and so really is not even a separate concept—it's integrated into everything you do in the lesson?** Absolutely everything. Yep, absolutely everything.

CO 2.1.2.2
T:B:PB

CO 2.1.2.3
T:B:OOC

CO 2.1.2.4
T:RR:RA

CO 2.1.2.5
T:STQ:PC

CO 2.1.2.6
Ph:CIC

- **Slide Technique**
  - **Describe how you would teach proper slide technique to your students, including alternate positions and valve combinations.** (pauses) Proper slide technique is…(laughs) well, my teacher Donald Knaub is the master of slide technique. That guy could play legato like, like nobody could play legato and his musicality is unbelievable. And he used a fast slide technique for legato and, (pauses) it's exceptional. It is just exceptional. I defer to him. His slide technique was just great. So, for legato I teach fast slide motions and for staccato I don't care. Actually I occasionally teach slow slide movements (pauses) for staccato notes. Particularly in the Kreutzer etudes where you go: (sings a series of detached eighth notes), I tell them they can never stop the slide. They'd have to get used to just having a little pop of a sound when the slide's going past it. And they'd have to keep right on going. How else can you play *William Tell*? You have to do it. You can't stop the slide at every note. That wouldn't work at all. So, I use that for staccato. For legato, it was a lightning fast slide movement, not thrown, (pauses) hanging on to the slide bar all the time with two fingers and never letting it go. It's more of an arm motion than a wrist motion. I don't like slide…(pauses) wrist sloppiness, it doesn't work very well. It leads to inaccuracy as far as pitch goes. **Would you say it's a combination of mostly the full arm or a sectioning of the arm into the shoulder, elbow, wrist, and maybe fingers? If so, what section plays the most vital role, and how do those**

CO 2.2.1.1 T:ST:P

CO 2.2.1.2 T:ST:P

CO 2.2.1.3 T:ST:SC

CO 2.2.1.4 T:I:TI

CO 2.2.1.5
T:ST:SC

work together? The arm is used mostly from first to sixth position. In seventh position, the shoulder gets involved to get that seventh position in tune. (laughs) But first to sixth is all arm. Even first to second: arm, not wrist. It's just too minute, the motions are too minute to be accurate.

CO 2.2.1.6
T:ST:AP:LU

(pauses) Alternate positions I avoid. (takes breath) Avoid alternate positions unless it produces an expressive phrase. And you can really do that; for example, if you're playing in the key of Eb, almost every time the leading tone D in fourth position is used; but in other cases, I always advocate first position for D because it gets a little bit better tone. It's one partial lower than fourth position and it gets a different kind of tone. So,

CO 2.2.1.7
T:ST:AP:LU

for tone purposes stay out of alternate positions but for expressive purposes, use alternate positions. I never use alternate positions for ease. I only use alternate positions for effect. **Do you stress valve combinations in your teaching?** Yeah, valve combinations are very

CO 2.2.1.8
T:ST:SC

important. My goal for two-valve bass trombones is to stay out of the second valve and make the sound as pure as possible. I always said if I ever played tenor trombone I'd never play with a valve; I'd always play with a straight horn and learn to get around it. And I make student tenor trombone players play the Saint-Saens Three solo with no valve so they can learn how to use the slide and air effectively. It's really an interesting concept to hear Saint-Saens Three played with no valve. It's really different. (pauses) If you can make it as smooth with no valve as you can

with the valve, the sound will be so much different. (laughs) That's how I look at that.

- **Intonation**
  - **How do you approach teaching students to play in tune on the trombone?** Well, I stress it a lot in every lesson; but when I could still play, I would play long tones—Remington long tones: Bb, A, Bb, Ab etc.—I would play those in octaves with the student and I'd make the student tune to me. And then when they'd get to the middle F, I'd stay on Bb and now we're playing in fifths. And, I'd play in fourths and fifths, and sixths sometimes. Sometimes, major tenths with them on various pitches and I'd tell them it doesn't matter if I'm right or wrong—you tune to me. So they'd really have to tune in and get rid of all beats. And then ultimately I would, for advanced students, play a half step away from them and make them tune to minor seconds. And you'd be surprised how (pauses) tight you can control a minor second. It's an awful sound, but it's such a powerful sound that students can't stand to hear it out of tune once they learn how to hear them in tune. And, the minuteness, the amount of slide change to make it sound horrible as compared to make it sound like a real minor second—is very slight, so they learn slide positions real fast. So that's how I use tuning. (quickly) In every lesson—I played in lessons when I could play, and we'd do probably fifteen minutes in every lesson—no kidding—fifteen minutes of tuning exercises with me playing some other interval. **So you use these mostly in an ensemble setting rather**

CO 2.3.1.1
T:I:SA:PO

CO 2.3.1.2
T:I:SA:PO

CO 2.3.1.3
T:I:SA:ET

CO 2.3.1.4
Ph:HI:OC

than approaching students just to play the horn itself and not on their own in tune? Yes. **Is tuning on one's own and in your ensemble setting related?** They are related. I make them tune to me when they were in lessons and tune to their tuner when they weren't in lessons.

CO 2.3.1.5
T:I:SA:ET

- **So you stress the use of an electronic tuner in your teaching?** Absolutely. I know a lot of people don't believe in equal temperament but, (chuckles) you gotta learn where the notes are, you gotta put it in third position and be able to stop the clock. If you can't do that, you can't play in tune with a section. How are you going to play, how are you going to play the chord in Brahm's One, you know? You don't play for a long time and bingo!...there you are. Gotta find the position, you gotta do it, and then adjust it from there.

CO 2.3.2.1
T:I:UT:HU

CO 2.3.2.2
T:I:TI

- **Are there specific exercises or etudes you use to help your students with intonation?** Well, for me it's Rochut, and slow long tones, and the Remington studies—Remington warm-up routines. The Rochut, which I also played in different clefs. If they did them in tenor clef I'd be playing in bass clef—a perfect fifth. And major sevenths: the students play in alto clef and I play in bass clef and it's down a major seventh. And of course you go down and get fourths and fifths. All those different things. But playing along with somebody and tuning to somebody else is really, really good practice.

CO 2.3.3.1
Ph:WR:ST:R

CO 2.3.3.2
Ph:CIC:MTS

CO 2.3.3.3
T:I:SA:PO

- **Articulation**
  - **Do you teach articulations syllabically (i.e. "tah", "doh", "too-koo")? If so, please describe the syllables and when they are appropriate when playing.** Ah, a little bit. It's (pauses) not (pauses again, then laughs)…I guess the real answer is no! Because I teach articulation until it sounds right. And for some students it's a "dee" syllable to make it sound right because they normally tongue too hard. For some students it's a real "tah", more of a percussive sound because their natural tendency is to play with a "dee" tongue. So it's whatever makes them sound right. **So you go by the product, the sound of the instrument or whatever it takes to make that sound correct?** Yes. **Do you explain this to your students that's what you're doing or is it a slight deception in order to make them sound correct?** Oh, both. Sometimes I like to trick them into things. That works really well sometimes; and sometimes I like to talk about it and explain it to them so they can understand it. I taught with a tuba player named Wes Garner. He used to teach at Ball State long ago. He went into jewelry sales later on. But he taught at Bemidgji State Summer Music Clinic along with me. And his philosophy, which I kind of liked (emphasis), was that he worked on stuff with students, but he wouldn't let them know what he was working on. He worked on one thing by telling them another thing so he could work on articulations through air, or air through position or posture, or musicianship through pitch, or pitch through something else to get their mind away from what

CO 2.4.1.1
T:A:S:LU

CO 2.4.1.2
T:A:PB

CO 2.4.1.3
Ph:CIC:TI

CO 2.4.1.4
Ph:CIC:MTS

they were working on so they could improve quicker. I found he was right on that. So, I've played games with students once and a while but only to help them. It's funny to get their focus off it so they can really improve faster.

- **Do you have any specific strategies for teaching a particular tonguing style (i.e., legato, double, doodle)?** Not really. Again, it's product-based, and some students need to tongue real hard in legato, and some students need to really back off the tongue and make more of an "oo" or "loo" or a "nah" or some kind of a syllable to make it sound right. Always, always listen for the sound, always listen for the product. Make it right.

CO 2.4.2.1
T:A:PB

- **Are there specific exercises or etudes you use to help your students with articulation on the trombone?** I did it with the Remington studies: (sings a series of thirteen eighth notes at a medium fast tempo). And other than that, I used the Kreutzer etude, Number 1, for articulation. Legato articulation would be done in the context of (pauses) the routine (sings twelve eighth notes at a moderate tempo on "loo"). And then the Remington studies and the Rochut. But otherwise that's it. No real method in that. **So it goes back to the multiple concepts you use when you're teaching utilizing etude and method books.** Right.

CO 2.4.3.1
Ph:WR:ST:R

CO 2.4.3.2
T:A:SC

CO 2.4.3.3
Ph:CIC:MTS

- **Sound and Tone Quality**
  - **Please describe how you teach sound/tone concept to your students.** Oh, this is the most important part of all. I think this is the one thing that a

CO 2.5.1.1
Ph:HI

teacher is most responsible for teaching their students. This is, above all, the most important thing a teacher can give their student—is a concept of tone. And for that, when I could play, I would demonstrate constantly. And I would make them play as loud as I am, play as soft as I am, and I'd make them follow the nuances while I was playing a fifth lower or a third lower or a sixth above or some other kind of interval. (pauses) If you play enough like that they kind of automatically assumed that tone quality. So, here at Michigan State when I played, all the students had something of a similar basic sound quality, and all the trombone sections in wind symphony and symphony band and concert band and symphony orchestra and philharmonic orchestra, chamber orchestra and all the different ensembles was remarkably uniform. It was fabulous. And then when I couldn't play—in 1994—it changed really fast. And that's the first thing I noticed. I listened to wind symphony and thought "Ah, let's see, I didn't like that blend; the blend was not good in that chord. It didn't really gel, it didn't really lock, it didn't really match." And that's what frustrated me most about the whole thing, (pauses) was that the sound concept was not (emphasis) there anymore. So my sound concept was taught through demonstration.

CO 2.5.1.2
T:STQ:M

CO 2.5.1.3
T:STQ:M

- **Is it a suitable replacement for the actual teacher as a model to have recordings?** No, it's not. My students listen to recordings, but it's not good enough. You gotta be there; you gotta have somebody just (pauses) in your face all the time. I had all these guests in: I had Charlie Vernon,

CO 2.5.2.1
T:STQ:M

and Scott Hartman and Wycliffe Gordon and Alain Trudel…all these guys…Christian Lindberg—everybody you could possibly imagine in for clinics and master classes, but that's not good enough. It's got to be there on a day to day basis. Each student has to kind of buy into the style and the sound concepts so they're immersed in it every day of every week of every month of every year for four or five years, depending on your degree program. So it's not enough. It's got to be demonstrated, I think.

CO 2.5.2.2 Ph:HI:OC

CO 2.5.2.3 T:STQ:M

- **Range and Endurance**
  - **Please describe the teaching strategies you use to develop your students' range/register.** (laughs) Well, every day (emphasis) in that daily warm up routine they have to play as high as they can and as low as they can. And bass trombones play the long tones into the pedal range. If you play Rochut down two octaves in bass clef it's horribly low and very difficult, and to make it sound good—and you've got to sound good in those ranges too; it's not acceptable to just get the notes! So, those are the ways that I taught bass trombone really low range. They can play those extremely low notes. We had little contests with them—it was kind of fun, you know. (pauses) As for the higher range, for strength and endurance…well, I'd use Rochut for that, too. I'd make them play without stopping—I learned this myself; not by accident, somebody told me—I'd do three or four Rochuts in a row without any break at all. Just bass clef, right back to the beginning, tenor clef, right back to the beginning, tenor clef down an octave, right back to the beginning, bass

CO 2.6.1.1 Ph:WR:II

CO 2.6.1.2 T:EN:D

clef down an octave, right back to…and then on the second one the same thing: bass clef, tenor clef, tenor clef down. You do three or four of those things right in a row your chops are just about shot (emphasis). After about half an hour you can hardly play. But it was a good (emphasis) shot. It wasn't playing in the high range and screeching all the time. It was slowly building up raw strength. I look at strength building like a weight lifter, a body builder. You work the muscles, destroy the old fibers, then rest them until the new fibers grow in much stronger than the old ones. So it's a matter of work/rest, work/rest, work/rest and managing that. **Did you find that with your students as you developed one range, for instance the lower range, that the higher range became easier for them or vice versa?** Ah, yes, the lower range, yes. The lower range is an extraordinarily important part of it because I always bought into the Doc Severinsen concept where you when you work on your low range you are also working on your high range because you're working on airflow. Other way around I did not find that true. Working on the high range does not help the low range, but working on the low range does help the high range. Absolutely.

CO 2.6.1.3
T:RR:MD

CO 2.6.1.4
T:RR:RA

CO 2.6.1.5
T:RR:CE

- **What is your teaching philosophy regarding embouchure development?** Oh, (pauses) I'm real picky on that. I like to see a really solid embouchure—like Bill Watrous if you watch his embouchure. He's just a model of…rightness. (laughs) His embouchure is set there. I would strive to get every embouchure to look like that. And, knowing full well

CO 2.6.2.1
T:EM:SM

everybody's a little bit different and you have to have a few modifications to each embouchure; but the model is like Bill Watrous, where you put it on your face it doesn't move for higher range, it doesn't move for low range—it doesn't move at all. But, you do have to then take into account any personal differences and let them move around if they have to and let them do what they have to get a sound out. So it's a philosophy of go for a model, but accept what works.

CO 2.6.2.2
T:EM:PB

- **How do you develop endurance in your students?** Pretty much Rochut; don't rest so much in practice sessions; be more efficient. Once you get really good and warmed up, (pauses) I always bought into the Clark concept of "rest as much as you play" when you're warming up. But once you get warmed up, then quit resting and play (emphasis). Because so many students…they play a little bit and then they look at the clock; then they play a little bit and then they look at the clock; go get a drink of water, then they play a little bit; then go walking around the practice room, play a little bit; then do this, play a little bit and do that. Get rid of the "do that" and just play. **You speak of using orchestral excerpts in various ways and for various concepts. Is that something that's integrated into everything you teach, or are orchestral excerpts a kind of musical way of approaching these issues and putting them in a real world context?** Oh boy, I find it's part of everything I do. Orchestral excerpts are integral to everything; we always do orchestral excerpts. We have mock auditions, we have (pauses) orchestral sessions. If a student isn't

CO 2.6.3.1
T:EN:TSP

CO 2.6.3.2
T:EN:TSP

CO 2.6.3.3
Ph:CIC

prepared I'd say "OK, if you can't play your lesson, bring some people in and we'll play some excerpts. We'll at least get something done." So it was, it was all-pervasive. Everybody has to know all of them. And everybody has them pretty much memorized. All the standard ones, I mean. **Did you have a specific standard list that you would use as a guide?** Yes. I have every list of every orchestra. And I kind of compile one of those and say, "Here are the top ten. You need to have these memorized. Here are the top twenty—you need to have the top ten memorized you need to be able to play the top twenty perfectly. Here's the top thirty. You need to have a working knowledge of all of them, but you need to have the top ten memorized and be able to play the top twenty perfectly." That kind of thing.

CO 2.6.3.4 M:EP:LF

CO 2.6.3.5 M:EP:LF

- **Musicianship Issues**
  - **Rhythm**
    - **Please describe how you develop students' rhythmic sense and feel.** (laughs) You could do a lot with that. I made them play (pauses) Rochuts sometimes if they couldn't keep a straight rhythm I would kind of sing along with them, you know, like Michael Jackson does. So they have to stay square on it and try to make music while I'm doing these silly rhythmic patterns in time and they'd have to stay with me. That would help them stay in time. Also, I'd use the metronome a lot. I'm not sure how to answer that. Rhythm's all pervasive and it's so important to

CO 3.1.1.1 M:R:SC

CO 3.1.1.2 M:R:UM:HU

CO 3.1.1.3 Ph:HI

everything. Two things are important to everything and that's one of them.

- **So you stress the use of a metronome in your teaching?** (surprised) Oh, yeah. (matter-of-fact) Oh, my, yes. **Is it necessary to have a metronome on all the time or are there specific instances where you would recommend a metronome as an extremely vital tool in this particular case or to practice this specific concept?** (pauses) In orchestral excerpts and etudes, always be metronome perfect. If you can't do it with the metronome—you have to. (laughs shortly) If you can't do it without a metronome, use a metronome and then learn it so you can do it with just the light going. So you progress from divided eighth notes to divided quarter notes, and then just the light. So you progress from real hand-holding to kind of apron string cutting. **With the goal being to internalize the beat?** Yeah. Oh yeah, you bet. Internalize the rhythm and really be clear with it. **Do you ever find that actually tapping on a student's shoulder or some other tactile action helps some students to learn rhythmic concepts better?** I never did that. I always stomped on the floor. Just pound on the rhythm so even in a legato Rochut thing it can really help people. And it really may be over the top (pauses) in lessons but really getting the idea through that way. (pauses) Let me tell you what I learned from Edward Kleinhammer. I studied with him and (laughs) I only took one lesson from him. But it was while I was in grad school and things were going really well and, so I was playing really well and he said,

CO 3.1.2.1
M:R:UM:HU

CO 3.1.2.2
M:R:S

CO 3.1.2.3
M:R:UM:HU

CO 3.1.2.4
M:R:S

CO 3.1.2.5
M:R:SC

"Oh man, you sound great," that kind of stuff. And everything was going so smoothly and then he said, "You know what rhythmic articulation is?" I was this hotdog grad student, and I didn't want to say I didn't know, so I said "sure." He said, "oh, what is it?" (laughs) Boy was I stuck. (laughs again) Holy smokes. I said "Uhhh…I don't know." (laughs) Really embarrassing…really, really embarrassing. And so he explained rhythmic articulation, in his terms, was that you stress the downbeat. If it's in a 4/4 bar you stress beat one the most, you stress beat three the second most, you stress beat four the third most, you stress beat two less. If you want to subdivide that, the and of one is the next stressed note, then the and of three, then the and of four, then the and of two. So you can develop a hierarchy of notes that are stressed. I worked on *Lohengrin* with him, and he stressed that so much and it was so effective, that rhythmic articulation I've used that everywhere. Everywhere. The downbeats are so important. You lead to the downbeat, lead away from the downbeat and it organizes musical phrases into something that human beings can really latch on to and identify with. Making it human…it's just fabulous (emphasis). And you listen to the Chicago Symphony trombone sections, especially the old ones with Crisafulli and Lambert and Kleinhammer and it's just unbelievable on that, they're just strong on that. It's just great—shimmers.

CO 3.1.2.6
M:R:APSB

CO 3.1.2.7
M:R:APSB

- **Sightreading**
  - **Please describe the role developing students' sightreading plays in a typical lesson and what strategies and method books you would use to develop this concept.** Well, I use a little bit of the Lafosse *School of Sightreading*, those five books—but I don't use that very much. I will have to say I sightread with them all the time in lessons, and I make students follow me and keep up with me and I don't let them stop. I say, "keep with me" and if it falls apart I say, "right here!" boom, and we go. But here's the technique that really works the best and I can't remember who told me this. I take a three by five note card, and I say "OK, we're going to play this tune, we haven't played it before and I don't care, that's fine. I'm going to cover the first two beats—half of this measure. So, I'm going to count off and when you're on one I'm going to have the first two beats covered so you need to be looking at beats three and four as you're playing beats one and two." And I follow along and cover up two beats that they're playing and slide that card along which forces them to look ahead. I tell them "I can't force you to look ahead…(pauses) without this card, but I can force you to look ahead now." And I push them on that. And we'd do this piece, we'd do maybe a few weeks of that and I say "OK, you're doing good. You're doing a good job, you're comfortable with that, that's great—now I'm covering up the measure." And I cover up the whole measure. And when you can look a measure ahead when somebody's forcing a card along behind you—you can sightread almost

CO 3.2.1.1
M:SR:PWS

CO 3.2.1.2
M:SR:SC

anything because you're not looking at the notes. You always have to look ahead. Always (emphasis) have to look ahead. It's so critical to do that, and that's such a great concept to do. Oh! (recalls suddenly) I heard that from Nadia Boulanger. That's where it came from. I use that all the time. It's fabulous. If you get a trombone player to do it, a buddy, it helps their sightreading too because they have to be able to read what the person is playing and stay with it. (laughs) It helps everybody; it's a great concept and it really helps.

CO 3.2.1.3
Ph:HI:OC

- **Ensemble Performance**
  - **Do you stress chamber ensemble playing with your students (brass quintets, trombone quartets, duets)?** Absolutely. Trombone quartets we do all the time. I had a traveling trombone quartet and I coached trombone quartets. I have students coach them… (pauses) always. Brass quintets, brass choirs. Actually the smaller, the better; trombone quartets are the best thing for my use because I have total control over it: style, everything. So, trombone quartets, yeah...fabulous. **What specific skills are learned from these experiences?** Every ensemble skill; particularly pitch, balance, blend, and resonance is very important. And, the blend thing. Third trombone players never realize how loud they have to play to keep up with the first trombone players in a quartet situation or a strong bass trombone player. And that was really important (emphasis). And to hear a good trombone quartet that is well balanced and in tune and playing with the same kind of style is unbelievable. Like the American Classic

CO 3.3.1.1
M:EP:TIC

CO 3.3.1.2
M:EP:TIC

Trombone Quartet. It's unbelievable to hear them. **How much can you translate trombone quartets to, for instance, trombone sections in a jazz band?** A hundred percent. **And the only change there is a stylistic one, all the fundamentals stay the same?** Yep.

CO 3.3.1.3
M:VS:CG

- **Varying Styles**
  - **Is there a specific genre/style you stress in your teaching (orchestral, soloistic, jazz, commercial, etc.)?** Ah, well (laughs) I played jazz and commercial and solos and orchestral things but I stress orchestral and solos in lessons primarily. I don't do jazz in lessons because that's a style I don't understand enough of. I think if it's jazz it's got to be improvisation and I wasn't good at that. I played bass trombone. (laughs) I listen to those who can (emphasis) do it.

CO 3.4.1.1
M:VS:TA:L

  - **What importance do you attach to stylistic versatility in your students' playing?** Oh, just total importance. I mean every orchestra in the country is now doing pops concerts. If it's swing, you walk in to…(pauses) I played in the Brass Band of Battle Creek for many years. You gotta walk in and play, *Russian Easter* or whatever it is and then you gotta play some swing stuff. You gotta sound good on it. Because you're playing with people who are really into the jazz part of it. And you're playing with people who are into the orchestra part of it and you don't want to look stupid for any of them. **In America we're graduating all these music performance majors now, and the number of graduates each year greatly exceeds the number of new jobs that are opened up**

CO 3.4.2.1
M:VS:IP:H

every year. How does stylistic versatility play into those people actually getting jobs and staying in the music world instead of doing something else? It depends on what they're shooting for. If they're shooting for the jazz area and they're really good, they don't need to play classical so much. Same thing with the exceptional orchestral musicians. They don't need to play so much jazz. They don't need to be great (emphasis) jazz players. We have good jazz players and then we have great jazz players. Wycliffe Gordon's a great jazz player, he does some orchestral but not very much. But, Joe Alessi who does orchestral things fantastic and he does some jazz, but he's known for his orchestra. Then we have Charlie Vernon who does bass and tenor but he's really a bass. (pauses) It's important to be versatile for the ninety-nine percent of us who aren't Joe Alessi, Wycliffe Gordon, or Charlie Vernon. For the rest of us you got to be versatile as heck. (laughs)

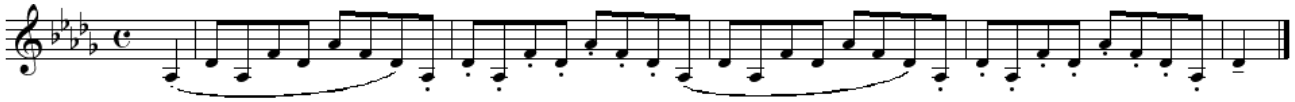
CO 3.4.2.2
M:VS:IP:H

This concludes the interview. Thank you, Mr. Olson, for your participation in my research. May I have your permission to contact you again should the need for follow-up questions arise, and to authenticate the transcribed interview? Yeah. **Thank you again. I will be in touch regarding the final document, and a complimentary copy will be sent to you when it is available. Is there anything further you would like to address, or any further concerns you have?** Nope, sounds good to me. **Again, my sincere appreciation for your participation in this research!** No problem, glad to be part of it.

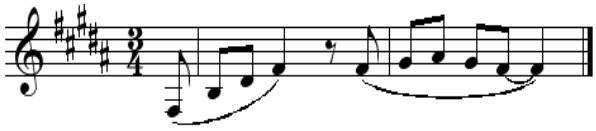
Appendix E

Transcribed Musical Phrases from Interviews

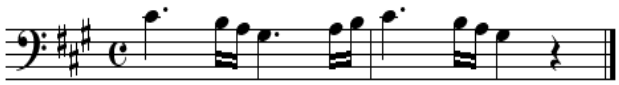
Marcellus #1



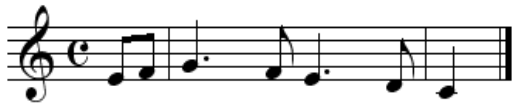
Marcellus #2



Olson #1

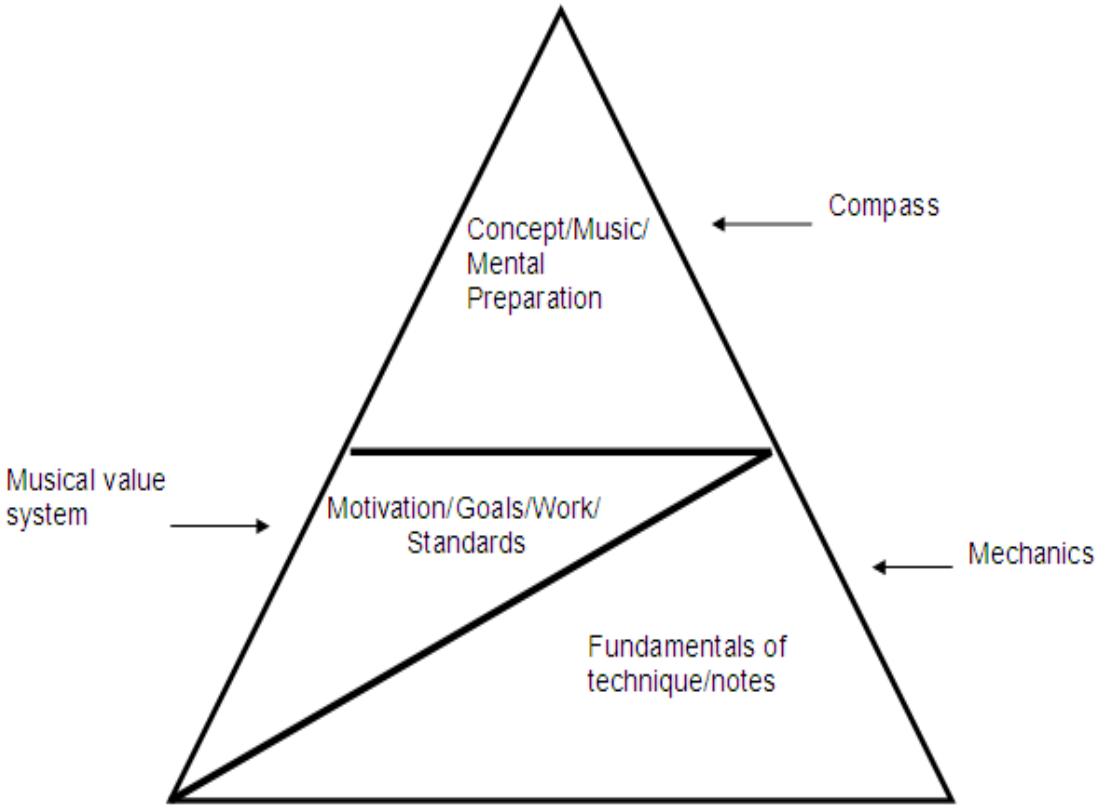


Olson #2



Appendix F

Performance Education Model of John Drew



"I've sketched out a diagram to give you a more concise idea of what I was trying to say. Very briefly, for me, performance can be concentrated into three primary areas which I envision as three triangles within the whole. All are essential, and all are unified by the others.

I think teaching and, in turn, learning, is most effective when you focus on the upper areas of the triangle. None is complete without the others, but it's always best when your approach moves from the top down.

As I mentioned in our interview, focusing on the musical results of the concepts that govern performance is critical to most efficient learning and development. This approach enables the internal guidance system. In turn, the importance of self-assessment, the establishment of goals, and the willingness to work toward these objectives is obvious.

Finally, the lowest triangle, representing the notes and technique, is also obviously essential to performance. But it's comparable to the many nuts and bolts that hold a vehicle together. The trombonists whose primary focus tends to be on these nuts and bolts and mechanics can drive the car, but not on race day.

To establish the correct priorities and blend these three units is extremely important in developing one of the common denominators all successful performers share: genuine confidence."

--John Drew

in letter to the researcher, May 2006

About the Author

At the time of publication, Matthew Buckmaster is Assistant Professor of Music at Elon University in Elon, North Carolina, where his duties include teaching music education and applied low brass. Prior to this appointment, he served as Assistant Director of Athletic Bands at the University of South Florida, where he also taught basic conducting and directed the brass ensemble. Previously, Dr. Buckmaster was on faculty at Southeastern University in Lakeland, Florida, where he taught applied low brass, music theory, ear training, brass techniques, assisted with the symphonic band, and directed the jazz ensemble and brass quintet. As a trombonist, Dr. Buckmaster has performed with the Tommy and Jimmy Dorsey Orchestras, the Sam Rivers "Rivbea" Jazz Orchestra, the Sarasota Opera Orchestra, and in the Magic Kingdom at Walt Disney World for almost 9 years. A Florida native, he now lives in Burlington, North Carolina, with his wife, Ana.