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An Investigation Of The Relationships Among Instructional Congruence, Burnout And Attrition In Undergraduate Music Theory Students

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AN INVESTIGATION OF THE RELATIONSHIPS AMONG
INSTRUCTIONAL CONGRUENCE, BURNOUT AND ATTRITION IN
UNDERGRADUATE MUSIC THEORY STUDENTS

by

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

In partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

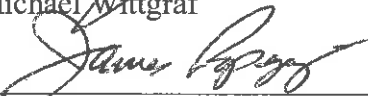
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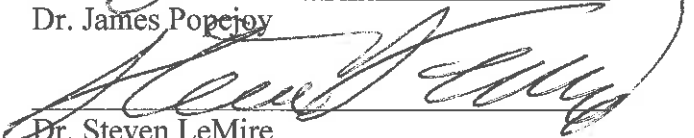
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This dissertation, submitted by Whitney Berry in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done, and is hereby approved.


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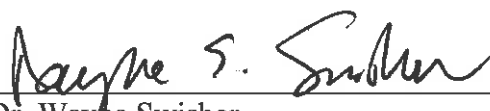

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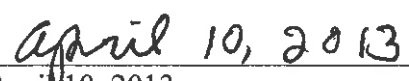

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Title An Investigation of The Relationships Among Instructional Congruence,
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Whitney Berry
May 2013

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For Justin, Nora, Ellen and Jack

ABSTRACT

Music theory is a core course in all undergraduate music degree programs. Students enter this course with varying degrees of prior subject matter knowledge, which presents a challenge to music theory teaching and learning. An incongruence between the student's prior knowledge and the level of instruction can negatively affect learning, mental health and persistence in the course sequence.

The purpose of this study was to determine what relationships exist among instructional congruence, burnout and attrition in undergraduate music theory students. A survey was developed and administered to music theory students at four universities in the upper Midwest (95.5% response rate, $n=171$). The sample consisted of two subgroups of first and third semester students. Using Mann-Whitney U tests and Spearman correlations, students' self-reported perceptions of burnout and instructional congruence were compared as well as their intent to continue in the music theory course sequence.

Findings indicated that first semester students who had music theory instruction prior to college perceived the course instruction as more congruent with their level of understanding than those who had not, and were more likely to continue in the course sequence. Instructional *incongruence* was correlated with higher levels of burnout for the sample as a whole as well as the two course level subgroups. Students who intended to leave the course sequence did not report higher levels of burnout than those who intended

to continue. In addition, no significant difference was found between first and third semester students on measures of either perceived instructional congruence or perceived burnout.

The relationship between instructional congruence and burnout has implications for music theory pedagogy. In particular, pedagogical methods aimed at increasing instructional congruence have the potential to decrease burnout. The impact of instructional congruence on students' mental health should be considered by both instructors and departments. Professional development opportunities and incentives for music theory faculty represent a tangible means of increasing instructional congruence while decreasing burnout and attrition.

CHAPTER I

INTRODUCTION

Statement of the Problem

Music students represent an interesting population for burnout and attrition research because of the unique demands placed on students in music degree programs. The high time requirements and number of courses, in addition to a variety of performance pressures that students experience contribute to an environment where burnout is a real concern. The National Association of Schools of Music (NASM), which is the accrediting organization for music degree programs in the United States, stipulates that one credit per 50-minute period of instruction be given for lecture courses (e.g. music theory, music history), but that two to three instruction periods per week are required for “laboratory” courses (NASM, 2013, p.76). Music majors are required to take several such laboratory courses (e.g. ensembles, applied lessons, aural skills) each semester, which represents a two- to threefold increase in class time as compared to lecture courses. To put it into perspective, an undergraduate in a different major may take four 3-credit lecture courses and spend 12 hours per week in class, whereas a typical undergraduate music major may take the same number of credits and spend 15-20 hours in class.

In addition to high time demands and performance pressures, students may also experience stress from group instruction in their academic lecture courses, such as music theory and music history, that is not at their level of understanding. Students entering a

college music degree program typically have had experience with the demands of performance on an instrument, as high school music programs are largely performance-based. However, a majority of students have not had experience with an academic course such as music theory, and are not prepared for the amount and type of work it entails.

The demands of time requirements and performance pressures cannot be changed due to accreditation standards and must be accepted as a way of life by students enrolled in music programs. However, instruction in academic lecture courses is one aspect of a music program that could be changed. If instruction can be optimized to enhance learning and reduce undue stress, then feelings of burnout may be reduced and attrition prevented.

Music Theory

In many undergraduate music degree programs, music majors and minors are required to take music theory courses during their first two semesters on campus. Smith (1992) observed that about 30% of students enrolled in first semester music theory did not continue into their second semester due to change of major, transfer to another institution, complete withdrawal from the university for receiving a failing grade in the first semester course, among other reasons. Although Smith's (1992) particular observation is 20 years old, anecdotal evidence suggests that this phenomenon is still largely the case in many music departments today. Evidence of attrition from the music theory course sequence is found in the often lower number of music theory sections offered by institutions in spring versus fall semesters.

Music theory can be one of the more academically rigorous courses that students encounter in the first years of their music degree programs and the one for which they

may be least prepared (Livingston & Ackman, 2003). If students lack the prerequisite knowledge, they may experience anxiety over the fact that the instruction and coursework are beyond their level of understanding. For some students, this may lead to the decision to drop out of, or not continue in, the course sequence and the major.

Purpose of the Study

Retention of students is an issue of concern and importance to faculty and administrators at the departmental level as well as to the institution and society at large. If students drop out, it ultimately results in a less educated populace, so retention of students is a real societal concern. In addition, in times of financial constraint, institutional funding is often tied directly to enrollment numbers. Quite simply, losing students has an impact on a department and institution's financial bottom line. Consequently, much research has been done on college student retention and attrition in general in an attempt to understand the reasons that students drop out.

It is known that college students in general and music students in particular experience feelings of burnout, and that these feelings may ultimately lead to attrition (Bernhard, 2007; Gold, Bachelor, & Michael, 1989). What is unknown is whether the instructional situation itself contributes to burnout and attrition. If instructional incongruence, that is, a mismatch between the instruction and a student's prior knowledge, contributes to burnout, then interventions could be made to both reduce burnout and ultimately retain students.

The purpose of this study is to investigate the relationships among self-reported attrition, perceptions of burnout, and perceptions of instructional congruence in a population of music theory students and to make comparisons between first and third

semester students regarding these relationships. Of particular interest in this investigation is the relationship between instructional congruence and burnout, as this relationship has not been previously investigated in the literature. An additional purpose of the study is to investigate the relationship between pre-college preparation for music theory and instructional congruence.

Significance of the Study

The body of research in music theory pedagogy is relatively thin in general, and research pertaining to student perceptions of music theory teaching and learning is even more rare. Music theory comprises a good portion of the core curriculum for music majors, and yet relatively little attention has been given to the efficacy and impact of instruction in music theory courses. It is known in general that an incongruence between the student and the educational environment can lead to students dropping out. It is also known that feelings of burnout can lead to attrition. If a relationship is established between the burnout and the instructional situation itself, it could be addressed by changes to curriculum and teaching methods and ultimately affect student retention.

Personal Interest

I have been teaching music theory and aural skills for over a decade. In that time, I have witnessed many students struggle with music theory due to a lack of prior knowledge and experience with the subject. In any given year, I begin the first semester of theory with a class comprised of students with very widely varying abilities.

I give a screening test at the beginning of the semester, the purpose of which is to identify the weakest students. These students are encouraged to take a remedial course

before attempting the music theory sequence, but there is no concrete prerequisite for the course. As a result, anyone who wants to attempt it may do so.

Over the years, I have developed instructional strategies to overcome the heterogeneity of the class, in particular at the beginning of the first semester, but there are always a few students who are overcome by the disparity between their level of understanding and that of the instruction. Knowing how instructional congruence factors into burnout and attrition would be very valuable for informing teaching practices and effecting possible departmental policy changes.

Music Student Burnout Study

A related study that I conducted in 2009 assessed perceived burnout and the relationship between burnout and instructional congruence among college music majors and non-music majors. The results indicated that music majors experienced a higher level of burnout than non-music majors and that approximately half of music majors reported some level of instructional *incongruence* in their music lecture courses (Berry, 2009). The fact that so many music majors in this study seemed to be experiencing instructional incongruence led me to believe that this topic was worthy of further study.

Conceptual Framework

Models of student attrition have been developed to show which background variables and student characteristics predict student attrition (Bean, 1980; Boshier, 1973; Tinto, 1988, 1993). Often, research studies find that it is not one, but the interaction of many variables that cause students to drop out. Variables such as high school GPA, absenteeism, interaction with faculty, attitude toward school and academic performance have an effect on a student's decision to persist or drop out (Bean, 1982).

Related to attrition is the concept of burnout. Burnout in the workplace has been measured by Maslach, Jackson, and Schwab (1986) using the Maslach Burnout Inventory (MBI) instrument. Later, this concept was applied to and measured in college students by Gold, Bachelor, and Michael (1986) using the College Student Survey (CSS); an adaptation of the MBI. Bernhard (2005, 2007) further adapted the CSS to study burnout in music students and found that undergraduate majors experienced higher levels of burnout than graduate students (Bernhard, 2007).

Although it has been established that attrition is a problem and that burnout may lead to attrition, another possible contributing factor has not been sufficiently studied. This factor is the instructional situation itself; in particular the relative congruence, or matching up, of instruction to a student's prior knowledge and experience in a given subject and how it relates to burnout and attrition.

Boshier (1973) presents a model for participation and dropout in which he refers to self/institutional congruence and states that *incongruence* can be understood as “the discrepancy between the participant's self concept and key aspects (largely people) of the educational environment” (p. 260). In short, if there is too much of a disconnect between the educational environment and the student's needs then the student is less likely to persist.

The idea of congruence between the learner's prior knowledge, their experience, and the instructional situation, is one of the basic tenets of Vygotsky's “zone of proximal development” (Vygotsky, 1978, p. 84). The idea that learning takes place when a novice operates just beyond his or her level of understanding with the help of an “expert” is also referred to as “scaffolding” (Wood, Bruner, & Ross, 1976). When learners confront new

information, that information is attached, or scaffolded, onto an existing schema in the learner's experience. When learners repeatedly receive instruction for which they have no frame of reference, it is difficult for them to assimilate the information, and over time this may contribute to stress, burnout and ultimately attrition.

At many institutions, there is no specific requirement or pre-requisite to enter the first semester of music theory (Livingston & Ackman, 2003). Students enter the course with widely varying knowledge and skills and yet are expected to complete the same course requirements. The challenge for the instructor becomes one of deciding at which level to teach. Often, weaker students experience instructional incongruence, as they simply do not have the cognitive structures in place to assimilate information quickly enough and are left feeling frustrated and left out.

In addition, incongruence inevitably takes place for those students on the higher end of the spectrum, for whom the course content and instruction are too easy. However, this investigation will focus only on the instructional incongruence that occurs when the level of instruction is too difficult in relation to the student's prior knowledge.

Research Questions

The present study was designed to investigate the relationships among attrition, burnout and instructional congruence in a population of music theory students. The goal of the study in general was to provide statistical support for the conceptual relationships among these constructs and in particular to provide support for hypothesis that instructional congruence is related to burnout. Additional goals were to determine what differences exist between first- and third semester students relative to the constructs

mentioned above and what relationship exists between pre-college preparation for music theory and instructional congruence.

The following research questions guided this study:

1. What relationships exist between the constructs of attrition, burnout and instructional congruence in a population of music theory students?
2. What differences exist between students enrolled in first and third semester music theory courses regarding their perceptions of burnout and instructional congruence?
3. What relationships exist between pre-college preparation for music theory and perceptions of instructional congruence for students enrolled in first semester music theory courses?

Attrition in this study was measured by students' self-reported intent to continue (or not) in a music theory course. In addition, the survey instrument in this study measured perceived burnout and perceived instructional congruence. It should be noted that the mention of attrition, burnout and instructional congruence from this point forward assumes the understanding that these are self-reported measurements.

Research Hypotheses

The hypotheses for this study, based on the questions above are as follows:

Hypothesis 1: Relationship Between Burnout and Attrition

Students who indicate that they do not intend to continue in a music theory course will report higher levels of burnout than those who do intend to continue.

This hypothesis was developed to further explore the relationship between burnout and attrition. A relationship between burnout and turnover in the workplace has

been established in the literature (Maslach, Schaufeli, & Leiter, 2001). Although the findings of Deary, Watson, and Hogston (2003) did not indicate a significant relationship between burnout and attrition in a population of nursing students, it stands to reason that a conceptual relationship between burnout and dropout may exist in other college student populations.

Hypothesis 2: Relationship Between Instructional Congruence and Attrition

Students who indicate that they do intend to continue in the music theory course sequence will report lower levels of instructional incongruence than those who do not.

Hypothesis two was developed from Boshier's (1973) idea that incongruence between the individual and the institution was a determining factor for attrition. This hypothesis extends Boshier's concept to congruence within the instructional situation and predicts that higher instructional congruence will be positively correlated with retention (represented as continuation in the music theory course sequence in this case).

Conceptually, it makes sense that students for whom the instruction is ideal will be less likely to drop out.

Hypothesis 3: Relationship Between Instructional Congruence and Burnout

Students reporting higher levels of burnout will also report higher levels of instructional incongruence.

Hypothesis three is exploratory and represents the new ground that will be broken in this study. The relationships between burnout and attrition and instructional congruence and attrition have been investigated in the literature. This hypothesis predicts that an additional relationship between instructional congruence and burnout also exists. Specifically, it predicts a positive correlation between burnout and instructional

incongruence, whereby a higher degree of instructional incongruence is associated with a higher degree of burnout.

Hypothesis 4: Differences in Instructional Congruence Between Student Groups

Students enrolled in a first semester music theory course will report higher levels of instructional incongruence than students enrolled in a third semester course.

The rationale for this hypothesis is that music theory students typically enter the first semester of the music theory sequence with widely varying degrees of prior knowledge (Livingston & Ackman, 2003). Conversely, students in a third semester course have already taken and passed two previous courses, ostensibly making for a more homogeneous group. Thus, students in such a group may be more likely to perceive the instruction as congruent with their understanding.

Hypothesis 5: Differences in Burnout Between Student Groups

Students enrolled in a first semester music theory course will report higher levels of burnout than students enrolled in a third semester course.

The rationale for this hypothesis is taken from the literature on burnout in the workplace; specifically that burnout can be caused by a mismatch between the job and the employee (Maslach & Leiter, 1997). In an educational setting, the job and employee can be equated with the course content and the student. First semester students are more likely to enter music theory with a lack of prior knowledge and thus are more likely to experience this type of mismatch. In addition, first semester students are adjusting both academically and socially to college life in general, which may factor into their overall perceptions of burnout.

Hypothesis 6: Pre-College Preparation for Music Theory and Instructional Congruence

Students enrolled in a first semester music theory course who have received instruction in music theory prior to college will report lower levels of instructional incongruence than students who have not.

This hypothesis was developed, in part, on the results of Livingston and Ackman's (2003) study on pre-college preparation for music theory. When asked which experiences prior to college they felt prepared them most for music theory, the top three responses by students in this study were high school band, primary instrument teacher and high school music theory course. Although high school music theory course ranked third, the percentages for all three were very close. This hypothesis is intuitive, in that it makes sense that instruction in a music theory in a class setting in high school would best prepare students to enter a music theory course in college.

Study Limitations

The relationships among attrition, burnout and instructional congruence have not been studied in the population of students targeted in this study. In addition, music theory students' perceptions of teaching and learning have not been widely researched. Due to the fact that this study is breaking new ground, all results should be considered suggestive rather than definitive.

The first limitation is that the generalizability of the results is limited by: a) the fact that the sample comprises institutions from a relatively limited geographical region; and b) the selection of both the participating institutions and the subjects within those institutions was not done by random sampling.

Second, the survey instrument is a new one and was only piloted on a small number of students before it was used. While the survey was based on an earlier version that produced good internal consistency, there are potential concerns about reliability and validity with any researcher-made instrument that has not been standardized.

One of the goals of this study is to assess the differences in perceptions of burnout and instructional congruence in two different student populations at two different points in the music theory course sequence. First and third semester courses were chosen by convenience, as they both occur in the fall semester and this facilitated easier data collection. An additional limitation of the study is that students in second and fourth semester courses were not surveyed, so a complete picture of the differences in these perceptions across the course sequence was not possible.

Definition of Terms

There are several terms used in this study that could be interpreted to have multiple definitions and meanings. To provide clarity, the terms below will be operationally defined for this study as follows:

Attrition: measured by students' self-reported intentions to continue in a music theory course or not, attrition will be considered as dropping out of the music theory course sequence.

Burnout: burnout is a prolonged response to chronic emotional and interpersonal stressors and is comprised of the psychological constructs of emotional exhaustion, depersonalization and personal accomplishment (Maslach, Schaufeli, & Leiter, 2001).

Instructional congruence: instructional congruence is the degree to which the instructional level in a given course aligns with the student's prior knowledge and

experience in the subject. In this study, instructional incongruence will be interpreted as instruction that is above the student's level of prior knowledge, or too difficult.

Music theory: music theory is the study of the mechanics and stylistic conventions of music. The study of music theory is a core component of a college music curriculum, most frequently offered as a four-semester course sequence in the first and second years of a baccalaureate degree.

CHAPTER II
REVIEW OF SELECTED LITERATURE AND RESEARCH

Music Theory

Course Perspective

Music theory is a required component of all undergraduate music degree programs in the U.S. The National Association of Schools of Music (NASM), the accrediting body for American college music programs, states that “basic musicianship and performance,” of which music theory courses are a component, should comprise roughly 20-30% of the total number of credits for most music degrees (NASM, 2013). In a survey of the undergraduate music theory core curricula at 248 institutions, Nelson (2002) found that the majority of schools required two years of music theory courses and that roughly one third required more than two years worth.

Institutions vary on their entrance criteria for first semester music theory courses. In the same survey, Nelson (2002) noted that 147 of 248 institutions required students to complete an entrance exam. Some institutions required a passing grade on this exam in order to be allowed to enroll in the course; others used it as a diagnostic tool. At about half of the surveyed institutions in Nelson’s (2002) study, a remedial course in music fundamentals was offered for those students who lacked a background in music theory and did not meet the entrance criteria.

In addition, at 60 institutions, the requirement of completing remedial coursework resulted in an out-of-phase music theory sequence for the student and a potentially prolonged time to degree completion.

Institutions that do not require a placement exam adopt an open enrollment policy, whereby there is no entrance requirement or prerequisite. Some institutions may restrict enrollment somewhat by offering the course to majors and minors only, or allow truly open enrollment, whereby any student who wishes to may enroll.

Requiring a placement exam provides a more homogeneous student population, as students presumably enter the course with a similar degree of prior knowledge. The opposite is true of open enrollment, and the resulting diversity in student backgrounds presents challenges to music theory teaching and learning. Whereas performance instruction occurs in the context of individual lessons, music theory is taught as a group lecture course, with an average of 15 students in a class (Nelson, 2002). Damschroeder (1989) put this into perspective stating,

It would be absurd to suggest that all performance majors should be subjected to the same level of artistic and technical demands on their instrument or voice, even if they enroll under the same course number... At most of the world's conservatories and universities, private instruction in performance is the norm... Why, then, has this strategy been neglected in the teaching of music theory?
(p. 177)

Ideally, music theory is best taught one-on-one, but it would be extremely costly to do so. In fact, at 15% of the institutions in Nelson's (2002) study, graduate teaching assistants were used to teach first year theory courses, thus freeing up faculty to teacher

upper division courses and cutting down on the cost of hiring additional teaching staff. The decision to use graduate teaching assistants to teach entry-level courses may make sense from a cost perspective. However, the fact that GTAs are among the least experienced instructors in a department may mean that they are not as able to deal with the instructional challenges that accompany teaching an entry level music theory course.

Music fundamentals can be described as the basic components of musical nomenclature and include such things as note names, clefs, key signatures, scales and other musical symbols and basic structures. These components comprise the essential “language” of music theory and must be learned and fully assimilated before more advanced study can take place. At most of the colleges in Nelson’s (2002) survey, music fundamentals were covered (i.e. taught as new material) or reviewed during the first two to four weeks of the first semester.

It is well known that a thorough understanding of music fundamentals is necessary before further study in music theory can be undertaken successfully (Bowman, 1984; Damschroeder, 1989; Ehle, 1982; Rogers, 2000). However, the fact that most institutions cover fundamentals rather quickly in the first few weeks of the semester means that a student lacking a certain amount of background in music theory is faced with the rather daunting task of learning, retaining and assimilating a relatively large amount of information in a short period of time.

To summarize the nature of music theory from a course content perspective, it can be said that the music theory course sequence is required for all music majors, and many students are inadequately prepared for the entrance level course (Bowman, 1984; Damschroeder, 1989; Jones & Bergee, 2008; Livingston & Ackman, 2003). At

institutions that allow open enrollment into first year music theory, a wide diversity of levels of prior knowledge may be found in the student population. This represents a significant challenge to the student, but also to the instructor, who must deal with both the diversity in backgrounds of the student population as well as the demands and time constraints of the curriculum. In addition, these issues must be dealt with within the context of a group instructional setting.

Instructor Perspective

What perspective do instructors bring to music theory pedagogy? A discussion of music theory pedagogy should be prefaced with the disclaimer that music theory is not a very widely researched field, and as a result, there is a relative lack of literature on the topic. To give some anecdotal perspective, a search for “college ‘music theory’ pedagogy” on the ProQuest dissertation database (<http://search.proquest.com>) returned roughly 1500 results from 1950 to the present. Substituting “mathematics” for “music theory” garnered 20,000 results for the same time period and “language” roughly 40,000. Even within the field of music, music theory pedagogy is relatively under-researched. For example, substituting “piano” for “music theory” in the abovementioned search generated about 5500, or roughly three times as many results.

Although the body of research is thin, it is not entirely absent. The *Journal of Music Theory Pedagogy* is the most noted scholarly journal in the field and was founded in 1987 in an effort to create a forum where music theorists and teachers could share their findings (Rogers, 1987). The emphasis in this journal is largely not on research-based articles and tends to focus on music theory curriculum versus teaching methods. Although there has been an increased interest in music theory pedagogy in recent years,

the literature both within, and outside of, this journal tends to focus on curricular issues and general pedagogical philosophies rather than specific teaching techniques.

Music theory curriculum and sequence. Within the *Journal of Music Theory Pedagogy*, it is common to see literature on general content-related topics such as counterpoint (Hanson, 1992; Hanson, 1995; Mancini, 1989), and musical analysis (Bass, 2002; Folio, 1991; Harter, 2009; Pacun, 2003; Winold, 1993; Zeeuw, 1987). Although there are some articles that deal with specific teaching techniques or strategies (Code, 1997; Royal, 2009; Kazez, 1992), it is more common to see literature on general teaching tools such as solmization systems (Lorek & Pembroke, 2000; Smith, 1991) and music listening (Alegant, 2007) or generalized approaches, such as Shenkerian (Riggins & Proctor, 1989) or Neo-Riemannian (Engebretsen & Broman, 2007) approaches to musical analysis.

Outside of this journal, there are also examples of music theory pedagogy research dealing with the curricular issues of what to teach and how to arrange this content. In an article addressing theory pedagogy issues of the past and present, Rogers (2000) described concern about curricular design as a common link between music theory instructors of the past, citing the ongoing debate over the relative weighting of various music theory curriculum components such as tonal harmony and counterpoint (p. 111).

What to teach in music theory is in part determined by standards set out by NASM. However, these standards are fairly general and not always followed. In a survey study of music theory faculty in all four-year music education degree programs in Texas accredited by NASM, Johnson (2010) found that the music theory curricula in these programs were not in compliance with the standards of NASM, the Texas State

Board for Educator Certification and the Texas Essential Knowledge and Skills. As a result, music education majors were not being adequately prepared to teach the music requirements of the Texas Essential Knowledge and Skills standards in the public school curriculum.

Although general standards are set by NASM, music theory instructors have their own ideas about the specific content of their courses. In an effort to synthesize music theory instructors' perceptions of what it is that students *should* know, Vance (1996) developed and administered the Four-Year and Junior College Music Faculty Survey to music theory faculty in Alabama. The survey sought to determine which topics, and aspects of those topics, in music theory were important for undergraduate music transfer students to have been taught in their first two years of music theory and resulted in a rather lengthy list of seven topic areas and 129 aspects of these topics; demonstrating the relative diversity of these opinions.

Looking beyond curriculum to the issue of sequencing of content in music theory, Kunda (2003) analyzed three popular music theory textbooks and identified sequential problems in each. Citing the importance of linear sequencing in educational materials, Kunda then developed a new textbook that used a linear sequencing approach.

In contrast to this, Dalby (2005) challenged the status quo of “traditional” music theory and aural skills curricula and sequencing approaches, which, he stated, are “neither an appropriate nor an efficient treatment for students’ aural deficiencies” (p. 360). He then suggested the Learning Sequences of Edwin Gordon (2003) as an alternative sequencing method.

Taggart (2005) expressed similar sentiments to Dalby (2005), stating that the reason that college students are often frustrated by, and even hate, their music theory classes is that the instructional objectives are not based on individual student abilities and learning characteristics and thus, the sequence of instruction is often ineffective and counterproductive. Instead of focusing on the written aspects of notation, a sequencing approach based on Gordon's (2003) theory would start with aural musical structures and introduce notation as students demonstrated readiness (Taggart, 2005).

It is evident from more recent research, that reforms to current practice in music theory pedagogy are needed. Schwartz (2009) described some of the underlying ideological and methodological assumptions that currently shape music theory instruction, noting a perceived disconnect between teaching practice, curricular aims and methodological approaches within the field. She suggested the adoption of an alternative pedagogy to engage learners more meaningfully.

Similarly, Buehrer (2000) echoed the theme of dissatisfaction with, and desire to reform existing instructional models. Buehrer described the goal of music theory instruction traditionally as one of mastery of concepts within a domain and presented an alternative curricular model for the teaching of aural skills based on the tenets of constructivism and incorporating techniques such as situated and problem-based learning (p. 2).

Taking the idea of pedagogical reform even farther, Miller (2008) described an interesting alternative teaching method for music theory that combined the pedagogical principles of Dalcroze Eurythmics with that of Brain Gym; a teaching tool designed to focus attention and increase learning potential. As a rationale for the combination of

these approaches, Miller cited brain function research indicating that movement combined with the engagement of the whole brain optimizes learning.

Although it was mentioned above that much of the research contained in the *Journal of Music Theory Pedagogy* focused on content and sequence rather than teaching practice, two exceptions are worth mention. Zbikowski and Long (1994) provided a convincing justification for, and specific examples of, the incorporation of cooperative learning methods in music theory. Drawing on the research on cooperative learning done by Johnson and Johnson (1994) during the same time period, this article represents a good, albeit isolated, example of music theory instructors looking to educational research to inform and transform their practice.

Similarly, Lively (2005) advocated an approach to music theory instruction based on Kolb's (1984) typology of learning styles. Although evidence for the efficacy of matching instructional methods to the individual learning preferences of students (and even the very existence of distinct learning "styles") has recently been disputed in the literature (e.g. Riener & Willingham, 2010), this article at the very least represents an effort toward research-based practice in music theory instruction.

Advances in the field of music perception and cognition have also influenced curriculum design, instructional materials and instructional practices in music theory and aural skills (Rogers, 2000). Rifkin and Stoeker (2011) recently published a taxonomy for music learning based on the seminal work of Karpinski (2000), a leading scholar and practitioner in music cognition-based aural skills pedagogy. Additionally, the concept of "connected teaching" in relation to freshman music theory in particular has been investigated by Stutes (2005).

The above examples of literature related to music theory teaching practice represent a relative minority of writings in the field of music theory pedagogy and may not necessarily reflect common practice among music theory instructors. Music theory instructors may be hesitant to implement large-scale changes to their instructional methods because they lack the incentive and skills to do so. As a result, these instructors often default to the more “traditional” teaching methods used by their own music theory instructors. This may be particularly the case for GTAs, who are typically less experienced and thus more likely to perpetuate the “teach as you were taught” mentality.

Instructor training. In higher education, it is commonly the view that *what* you know is more important than whether or not you can teach it. Indeed, previous experience in teaching of any kind is seldom considered a prerequisite skill, nor is part of the job description for professors in many disciplines. Weimer (1990) posits that historically, college teachers have received little to no training in teaching and course design, and yet teaching comprises a significant portion of their jobs.

The field of music theory is no exception to this phenomenon. In fact, in a survey of musicianship instructors in California Community Colleges, Anderman (2011) found that although most instructors considered themselves to be theory/composition content specialists, a majority indicated that they had not received any specialized training in musicianship pedagogy.

Shanefield (2011) also noted the lack of research in music theory pedagogy, describing it as a fairly insulated field. Shanefield’s (2011) study provided a snapshot of the perceived classroom effectiveness of a small group of music theory faculty not trained in teaching pedagogy.

With little training in teaching techniques, many instructors rely on the methods they have observed in their own college music theory classes and often choose a lecture approach because they perceive this method as the most efficient way to deliver content (Vega & Taylor, 2005). Davis (2001) described “traditional” lecturing as “one-way communication in which the student is a passive participant” (p. 131). Similarly, Bain (2004) stated that most professors’ ideas about teaching focus on the role of the teacher rather than that of the student. In this conception, “teaching is something that instructors do to students, usually by delivering truths about the discipline” (p. 48).

Lack of formal training and a tendency for faculty to emulate the techniques of their own past teachers are pervasive issues in music theory and musicianship pedagogy as well. Zbikowski and Long (1994) stated that teaching methodologies were of “less concern” to teachers at the post-secondary level and that music theory instructors tended to “teach as (they) were taught, changing (their) habits only in the face of unique or epochal circumstances” (p. 136).

In one of the relatively few books on music theory teaching at the college level, White (2002) echoed the same sentiment. Speaking of faculty preparation for teaching he stated that “most musical academics appear to operate under the assumption that if teachers thoroughly know their substantive areas of musical scholarship and research or creative activity... that they can usually learn to be good teachers” (p. 23). This position is evident in the rest of the book, which deals primarily with aspects of course curriculum and order of presentation. It is also emblematic of the aforementioned tendency in the literature to focus more on the *what* of music theory teaching and less on the *how*.

The 2002 publication date cited for White's book above is for the most recent (2nd) edition of this book. It may be noted, however, that the only difference between this edition and the first (1981) edition is the addition of a small section on technology usage. The same pedagogical ideas are presented in both editions, which reinforces the argument that little has changed in college music theory teaching in over three decades.

To summarize, music theory instructors are faced with the task of teaching a relatively large amount of course content to a large and diverse student population in a relatively short period of time. Making this task more difficult is the fact that many instructors lack any type of formal training in college teaching in general. In addition, many are unaware of current research in college teaching and the relative efficacy of different teaching methods. In short, instructors place much emphasis on the *what* of music theory pedagogy and less on the *how*. This is unfortunate, because it is the *how* of teaching that impacts students most.

Learner Perspective

Music theory is a heavily content-laden course. As such, students must acquire a relatively large body of knowledge and skill in a relatively short period of time. This situation is exacerbated by the fact that students come into the course with a wide diversity of prior knowledge and skill; a product of the lack of prerequisites typical of most American university music programs (Livingston & Ackman, 2003).

Pre-college preparation. In a study of preparation for college music theory, Bowman (1984) found that the students most likely to be assigned to remedial music theory courses were applied/performance majors (primarily voice majors) with 2-8 years of study on their instrument and less than one year of study in music theory either in a

traditional or self-study setting (p.129-30). Additionally, she pointed out that being assigned to remedial theory results in additional stress, as students may experience delays in their degree program completion (p.117).

Pre-college preparation (or lack of preparation) for music theory has been cited as a concern of music theory faculty (Anderman, 2011) and has been investigated as a predictor of success in music theory and aural skills courses (Arenson, 1983; Colman, 1990; Heritage, 1986; Jones & Bergee, 2008). In addition, deficiencies in aural musicianship in first-year music students have been linked to negative socio-musical self-esteem (Weaver, 1996).

Remedial instruction. In addition to pre-college preparation, attention has been paid to the role of remedial instruction in dealing with the disparity in prior knowledge that is common in first-year theory courses. Baker and Kosar (1992) described the design and implementation of a remedial music theory course in which emphasis was placed on process-oriented instruction, practice and reinforcement, and relevance of content (p. 100-101). The course previously had a one-third failure rate and was re-designed to deal with this problem, using discussion and practice of concepts and content instead of traditional lecture. The instructional interventions used in this study reduced the failure rate to approximately 23% (p. 106).

A form of remedial instruction often discussed in the literature is that of computer-assisted instruction, or CAI. CAI is appealing because it represents a means of dealing with deficiencies in achievement that can be used by students independently, without instructor assistance. The relative efficacy of various methods of CAI have been studied in the literature; the range of which includes everything from using tape

recordings in ear training classes (Garton, 1981), to computerized programs for teaching music fundamentals (Wilson, 1981), providing dictation examples (Hess, 1994) and teaching analysis of musical form (Sterling, 2002). More recently, Dodson-Webster and Gregorich (2009) investigated the classroom applications of student response systems, or “clickers” in music theory and their potential to engage learners.

Although research exists concerning music theory learners, it is largely from the perspective of students as test subjects. Research designs that incorporate a pre-test, treatment, and post-test are common as well as studies that observe measurable student characteristics (e.g. test scores) and use them to predict success or persistence in a course or degree. With Weaver’s (1996) study as a notable exception, it is far less common to find research that evaluates the efficacy of music theory instruction by directly asking the learner.

To summarize, the basic problem in music theory teaching and learning is that learners enter music theory courses with a wide diversity in entrance level knowledge and skill and must be able to learn and apply basic concepts in a relatively short period of time. Due to lack of training, music theory instructors may not be well equipped to deal with the challenge of providing effective instruction to a diverse student population within the allotted time constraints. If students do not receive instruction at the right level, they may be overcome by the disparity between the course content and their own prior knowledge. This may cause them to choose not to continue in the course sequence or degree program, or to drop out of the institution entirely.

Attrition

Student attrition is a topic of utmost concern to institutions of higher education and has been widely studied by researchers. Attrition, or drop out, is a complex problem involving the interaction of many variables. The body of research on attrition can be broadly divided into categories encompassing sociological, organizational, economic and psychological perspectives (Bean 1986; Berge and Huang, 2004). Typically it is not one, but a combination of factors that influence a student's decision to persist or not.

Models of Attrition

The two most influential and widely studied models of student attrition are Tinto's (1988) Student Integration Model and Bean's (1980) Student Attrition Model. Both models regard persistence, defined as "the desire to continue participation in the learning event" (Berge & Huang, 2004) as the "result of a complex set of interactions over time" (Cabrera, Nora, & Castaneda, 1993). In addition, both models argue that precollege characteristics affect adjustment to the institution and that persistence is affected by "the successful match between the student and the institution" (Cabrera, Nora, & Castaneda, 1993).

Tinto's (1988) model emphasizes the longitudinal nature of student departure and criticizes earlier research that viewed the process of student departure as "essentially invariant over the course of the student career" (p. 438). He further argues that "the forces that shape departure during the first year of college, especially during the first six weeks of the first semester are qualitatively different from those that mold departure in the latter years (Tinto, 1988, p. 439).

Tinto's Student Integration Model, based on Van Gennep's (1960) Rites of Passage, emphasizes three distinct stages of the integration process; separation, transition and incorporation (Tinto, 1988). As noted by Elkins, Braxton, and James (2000) the separation stage is of critical importance as it involves "personal transformation and possible rejection of the norms of past communities" (p. 253). Further, they found that, in addition to receiving support for college attendance from family and peers, students who perceived a need to reject past attitudes and values were more likely to persist from first to second semester.

Whereas Tinto's (1988) model posits that persistence is most influenced by academic and social integration as well as institutional and goal commitment, Bean's (1980) Student Attrition Model emphasizes the role of intent to persist, attitudes, institutional fit and external factors such as approval of family and friends, finance attitudes and perceptions about opportunities to transfer to other institutions (Cabrera, Nora, Castaneda, 1993).

Instructional congruence. Both models emphasize the importance of congruence between the student and the institution. In his model of educational participation and dropout, Boshier (1973) also discusses the concept of congruence between the individual and the institution and posits that dropout is more likely to occur when a state of incongruence, or dissonance, occurs between the individual and the educational environment (Boshier, 1973).

Related to "congruence," the term "alignment" is used in the literature to describe the relationship between the individual and the educational environment. Atkinson et al. (2007) refer to "the adaptiveness characterizing the ongoing alignment of the human

organism to its changing environment” (p. 171) and additionally claim that alignment takes place “not just between human beings, but also between human beings and their social and physical environment” (p. 171). As argued by LeMire, Melby, Haskins, and Williams (2012), alignment of instructional level and background knowledge can be studied in the context of Atkinson et al.’s (2007) work, which viewed alignment as the “coordinated interaction between the student and the instructor” (p. 67). The findings of their study indicated that misaligned instruction in high school mathematics contributed to lower math performance and a feeling of being devalued by educators.

The term “instructional alignment” has been used to describe the relationship between the individual and the instructional setting or course content as described above. However, this term can be, and frequently is used in the literature to describe the alignment between educational objectives and assessment measures (Biggs, 1996; Cohen, 1987; James, Griffin, & Dodds, 2008). For this reason, the term “instructional congruence” will be used in the present study to describe the matching up of instructional level to an individual’s prior knowledge in music theory.

Burnout

The concept of burnout was first and most notably investigated in relation to the workplace; specifically in relation to people working in the human services professions. Burnout is generally defined as a psychological syndrome in response to chronic interpersonal stressors on the job and is comprised of the three key dimensions of overwhelming emotional exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment (Maslach, Schaufeli, & Leiter, 2001).

Research on job-related burnout has investigated both the causes and effects of burnout. One such effect that is pertinent to the present study is that of turnover. In a review of the literature on burnout, Maslach, Schaufeli, and Leiter (2001) stated that “burnout has been associated with various forms of job withdrawal – absenteeism, intention to leave the job and actual turnover” (p. 406). Similarly, Yang (2004) cited mental distress, lower commitment and lower morale as effects of burnout.

For students, attrition, or dropout is equated with the concept of turnover in the workplace. Although factors leading to attrition have been widely studied, the specific relationship between burnout and attrition in college students has not. In a study of nursing students, Deary, Watson, and Hogston (2003) were not able to establish a strong statistical correlation between stress, burnout and attrition, but it stands to reason that a conceptual correlation does exist. Simply, if burnout is known to cause disengagement, then attrition can be seen as a logical end consequence of a student’s disengagement from their educational environment.

The Maslach Burnout Inventory (MBI) is a survey-based assessment tool developed by Maslach and Jackson (1981) to measure the three components of burnout, identified as emotional exhaustion, depersonalization and personal accomplishment. The MBI was originally developed for use in human service occupations, but a modified general form of the MBI developed by Maslach, Jackson, and Schwab (1986) has since been used in educational settings as well.

Further modified versions of the MBI have been used to study burnout among college students in general (Jacobs & Dodd, 2003; Neumann, Finlay-Neumann, & Reichel, 1990; Schaufeli et al., 2002; Yang & Feng, 2005) and among music students in

particular (Bernhard, 2007). Due to a variety of factors, music majors are at particular risk for burnout; a situation of utmost concern to students, faculty, and administrators.

In 2004 The National Association of Schools of Music (NASM), the accrediting body for college music programs in the U.S., convened the inaugural Health Promotion in Schools of Music (HPSM) conference "to develop core materials for health promotion specifically for National Association of Schools of Music (NASM) students, to increase NASM school administrators and faculty awareness of and ability to access resources for students, to develop unity, and to provide a foundation for future research and policy development" (Health Promotion in Schools of Music, 2004) in the areas of vocal, hearing, neuromusculoskeletal and mental health (Bernhard, 2007). In the final report from the conference in the mental health area, a need for further research was identified "to enhance current knowledge regarding variables related to or causing mental health problems in music performance, teaching and learning (Health Promotion in Schools of Music, 2004).

Health concerns of music students and faculty are addressed in the most recent (2013) edition of the NASM handbook. In the section on standards related to facilities, equipment, technology, health and safety, the handbook states:

Students enrolled in music unit programs and faculty and staff with employment status in the music unit must be provided basic information about the maintenance of health and safety within the contexts of practice, performance, teaching, and listening. For music majors and music faculty and staff, general topics include, but are not limited to, basic information regarding the maintenance of hearing, vocal, and musculoskeletal health and injury prevention. (NASM, 2013, p. 67)

Although mental health is not specifically mentioned, the standard could, and arguably should, be interpreted to include this facet of health as well.

There is much research in the literature related to the mental health of college students in general (e.g. Cushman & West, 2006; Deary, Watson, & Hogston, 2003), but little has been published on the health of college music majors in particular (Bernhard, 2007). In a recent study that attempted to address this need, Bernhard (2007) surveyed 183 college undergraduate and graduate music majors using the College Student Survey (CSS). This instrument was created by Gold, Bachelor, and Michael (1986) and was a modification of Maslach's Burnout Inventory (Maslach, Jackson, & Schwab, 1986). The results showed a statistically significant difference in perceived burnout between undergraduate and graduate majors, with undergraduates reporting higher levels of burnout (Bernhard, 2007).

As previously mentioned, my 2009 study assessed perceived burnout among college music students, using a further modified version of the CSS, and found that music majors reported higher levels of perceived burnout than non-majors and that approximately half of music majors reported some level of instructional incongruence in their music lecture courses. Although the constructs of both instructional congruence and burnout were measured, the statistical relationship of congruence to overall burnout was not. However, it was noted that the pattern of responses on the instructional congruence construct was similar to those of the burnout construct, indicating a possible relationship and area for future study.

Summary

Retention of students is an area of concern for faculty and administrators and has been widely studied in the literature. A student's decision to persist in, or drop out of a course, course sequence, major or institution is typically not confined to a single reason, but rather is a complex process involving many variables. Burnout in college students has also been widely studied and can be a precursor to attrition. Research in the area of instructional congruence provides support for the hypothesis that a mismatch, or incongruence, between the student's prior subject knowledge and the instruction can lead to cognitive shut down, and/or attrition.

Research in the field of music theory pedagogy has yet to fully address these concerns. Given the fact that the music theory sequence constitutes a significant part of the core coursework for music majors, and that freshman music theory is often perceived as a "barrier" course, it would stand to reason that research in this area would be of interest to both faculty and administrators. If the reasons for attrition from music theory courses were known, interventions could be implemented and dropout rates potentially reduced.

CHAPTER III
METHODOLOGY
Design of the Study

The purpose of this study was to investigate the relationships among burnout, attrition and instructional congruence in a population of music theory students. The study assessed and compared participants' self-reported perceptions of burnout and instructional congruence as a means to evaluate the relationship between these constructs. It also sought to evaluate the relationship of both burnout and instructional congruence to attrition, as evaluated by participants' self-reported intent to continue in a music theory course. Since the study sought to assess the self-reported perceptions of burnout and congruence of two groups, as well as to make comparisons between groups within the study population, a quantitative, cross-sectional survey design was used (Creswell, 2005).

Process of Site and Population Selection

In his research on attrition, Bean (1982) emphasized the importance of using a homogeneous sample in order to "increase the accuracy of the description of dropout for a selected group" (p. 6).

Due to both the desire for homogeneity and a relatively large sample size, I chose to target multiple four-year institutions within a tri-state area in the upper Midwest that had similar undergraduate music degree program offerings and a presumably similar student population.

Initial contact was made with the music department chairs of eight institutions. Of these, five agreed to participate in the study and three did not respond. The music theory instructors for both freshman (first semester) and sophomore (third semester) courses were also contacted and informed of the procedure and timeline. Because an additional purpose of the study was to compare freshman to sophomore music theory students, all students enrolled in first and third semester music theory courses at the participating institutions were targeted as the intended population. An additional four-year institution in the same region served as the site for the pilot study but was not included in the population for the actual study.

Participants

Participants in this study consisted of students enrolled in first and third semester music theory courses at five four-year public institutions in the upper Midwest. The total number of students enrolled in these courses at all institutions was 265. Of these, 176 (66%) were enrolled in first semester and 89 (34%) were enrolled in third semester courses.

It should be noted at this point that one institution was excluded from the study early in the research process due to the fact that a majority of the students were online; a fact that was not clear when the institutions were initially selected. Because it was believed that the experience of online instruction differed significantly from face to face instruction, these students were excluded.

The adjusted target population for the study consisted of a total of 217 students from the four remaining institutions. Of these, 144 (66%) were freshman level students and 73 (34%) were sophomore level students.

Instrument

A 28-item survey consisting of 11 demographic questions and 17 research questions was developed for use in this study. The instrument was a modified version of the Music Student Burnout Survey used in my earlier (2009) study with the addition of three research questions related to instructional congruence and seven demographic questions. Additionally, the wording of the questions in the instructional congruence construct was changed to make them specific to music theory, rather than music courses in general. The new instrument was termed the College Music Theory Student Survey (CMTSS). A copy of the CMTSS instrument can be found in Appendix A.

The demographic questions on the CMTSS included college status, major, degree program, primary instrument and number of years of study on that instrument, current music theory course and grade expected, intent to continue in music theory next semester (and reason for not continuing, if applicable), level of parental education and pre-college music theory preparation.

The research questions consisted of 15 statements to which respondents indicated their level of agreement on a Likert scale ranging from strongly disagree (1) to strongly agree (6). These statements were designed to assess the two main psychological constructs of burnout and instructional congruence. The burnout construct consisted of a total of nine questions adapted from the established Maslach Burnout Inventory (MBI) (Maslach, Jackson, & Schwab, 1986). Of these nine questions, three each assessed the burnout sub-constructs of emotional exhaustion, depersonalization and personal accomplishment.

In addition to the Likert scale research questions related to burnout, two additional questions were added to assess the validity of the burnout construct. The questions were: 1) Do you currently feel “burned out?” and 2) How “burned out” do you feel? The first question was given a yes/no response option and the second a Likert scale response option with 0 indicating “not at all” and 10 indicating “extremely burned out.”

The instructional congruence construct consisted of a total of six questions. Three were retained from my earlier (2009) study with a slight wording change. In these questions the term “music course(s)” was replaced with the more specific “music theory course(s).” Three additional questions that addressed instructional congruence in music theory specifically were added to this construct.

Research Procedure

Pilot study. A pilot study was completed at a four-year institution in the upper Midwest during the 2011 spring semester to assess the internal consistency of the survey instrument. The population for the pilot study consisted of a convenience sample of 53 students enrolled in second- and fourth semester music theory courses (34 and 19 students respectively). The population for the pilot was not exactly comparable to the intended population, as the students surveyed were in their second and fourth semester of music theory, not first and third as intended for the actual study. However, the pilot population was still useful as it allowed for an assessment of the internal consistency of the instrument.

The instrument was further modified after the pilot study, but only minor changes were made. As shown in Table 1, the original (2009) instrument had very good internal

reliability scores for all four constructs, which served as the main rationale for using a similar instrument in the pilot study.

Table 1. Cronbach Alpha Levels for 2009 Study by Construct.

Construct	Survey Questions	Cronbach Alpha Level
Emotional Exhaustion	14-16	.91
Depersonalization	17-19	.76
Personal Accomplishment	20-22	.73
Instructional Congruence	23-28	.87

By comparison, Table 2 shows the reliability of the instrument used in the pilot.

Table 2. Cronbach Alpha Levels for Pilot Study by Construct.

Construct	Survey Questions	Cronbach Alpha Level
Emotional Exhaustion	14-16	.70
Depersonalization	17-19	.80
Personal Accomplishment	20-22	.75
Instructional Congruence	23-28	.80

Since the Cronbach Alpha levels in the pilot study were very good and comparable to those in the 2009 study, no significant changes to the instrument were deemed necessary. However, based on some of the questions from students which arose during the administration of the pilot study, a few small changes were made to the instrument. These were as follows:

1. The addition of “check all that apply” was added to the demographic question (#3) regarding music degree program to accommodate students who were double-majoring (e.g. B.A. in Music and B.M. in Performance).

2. High school orchestra was added to the options in the demographic question (#11) regarding preparation for college music theory.
3. A parenthetical explanation for the word “callous” was added to question #14 (I’ve become more callous (uncaring, indifferent) toward people since I started college).

Data collection. Institutional Review Board (IRB) approval was obtained from the University of North Dakota and all participating institutions for administering the survey instrument. Responses to the survey were taken as consent to participate. An information sheet was provided to participants indicating that data would be kept confidential and only presented in aggregate form. All participants were provided with the name, phone number and e-mail address of the principal investigator.

The survey instrument was administered to both first and third semester music theory students during the latter part of the fall 2011 semester. Although the institutions involved were in a relatively proximal area, in-person distribution and collection of surveys at all institutions was not geographically or financially viable. A package of surveys and consent forms was sent via U.S. mail to each institution and was distributed and collected by the first- and third semester music theory instructors. The survey was administered in a music theory class period and returned to me via U.S. mail in a pre-paid envelope.

This procedure varied slightly for one of the institutions. Specific requirements of the Institutional Review Board at one of the participating institutions necessitated that I travel to that institution to administer the survey myself, which I was able to do.

Music theory instructors were given a relatively flexible time frame within which to administer the survey and were informed of the estimated completion time. The surveys were mailed out in early November and instructors were asked to return them by the end of the fall semester. They were given a brief set of instructions for administering the survey and were specifically instructed to inform their students that participation in the study is voluntary. Although a few students opted not to participate, the method of distribution and collection of surveys as described above yielded a 95.5% return rate.

In addition to the student survey, a brief instructor information sheet was included in the packet for each institution. This document provided instructions for administering the student survey and solicited some basic information regarding the course from instructors. The information collected included: 1) the instructor's name and academic rank, 2) the number of students enrolled in the course, 3) the textbook used and the chapters or topics covered, 4) the presence and type of placement or screening exam used (for freshman students) and whether or not such an exam requires a passing grade for entrance into the course. In addition, to accurately assess the response rate, instructors were asked to record the number of students present in class on the day the survey was administered. A copy of the instructor information sheet can be found in Appendix B.

A survey codebook was developed to numerically code the responses. All responses were coded identically using this codebook, and data were entered into an Excel spreadsheet.

Data Analysis

Data were analyzed using IBM SPSS Statistics for Windows, Version 20.0 (IBM Corp., 2011). Specific procedures for each hypothesis are discussed below. Table 3 reviews the research questions and their related hypotheses.

Table 3. Research Questions and Hypotheses.

Research Question	Hypotheses
1. What, if any relationships exist between the constructs of attrition, burnout and instructional congruence?	H1: Students who indicate that they do <i>not</i> intend to continue in a music theory course will report higher levels of burnout than those who do intend to continue. H2: Students who indicate that they <i>do</i> intend to continue in the music theory course sequence will report lower levels of instructional incongruence than those who do not. H3: Students reporting higher levels of burnout will also report higher levels of instructional incongruence.
2. What, if any differences exist between students enrolled in first and third semester music theory courses regarding their perceptions of burnout and instructional congruence?	H4: Students enrolled in a first semester music theory course will report higher levels of instructional incongruence than students enrolled in a third semester course. H5: Students enrolled in a first semester music theory course will report higher levels of burnout than students enrolled in a third semester course.
3. What, if any relationships exist between pre-college preparation for music theory and perceptions of instructional congruence for students enrolled in first semester music theory courses?	H6: Students enrolled in a first semester music theory course who have received instruction in music theory prior to college will report lower levels of instructional incongruence than students who have not.

Statistical procedures. Non-parametric statistical procedures were used in the data analysis for this study. This was done for a combination of reasons. In several of

the analyses, the assumptions of the parametric test, specifically the One-Way ANOVA, were violated. To maintain consistency, non-parametric statistical tests were used throughout. All hypotheses were tested at a significance level of .05.

Analysis of Hypotheses. Hypothesis one was examined using a Mann-Whitney U test. The independent variable was the response to Question 8: “Do you intend to continue in a Music Theory course next semester?” which was answered with a binary yes/no response. The dependent variable was the combined score of Likert scale responses on the burnout construct (survey questions 14-22). A high score on the dependent variable indicated a high degree of perceived burnout.

Hypothesis two was also examined using a Mann-Whitney U test. The independent variable was the response to Question 8: “Do you intend to continue in a Music Theory course next semester?” and the dependent variable was the combined score of Likert scale responses on the instructional congruence construct (survey questions 23-28). A high score on the dependent variable indicated a high degree of perceived instructional *incongruence*. This hypothesis was examined for three groups within the sample: 1) all students 2) first semester students only, and 3) third semester students only. As a point of clarification, the statements in the instructional congruence construct were worded such that an indication of incongruence meant that the instruction was too difficult, or above the student’s level of understanding, and not too easy.

Hypothesis three was examined using a Spearman correlation, as it sought to examine the relationship between the variables of burnout and instructional congruence. The burnout variable was the combined score of Likert scale responses on the burnout construct (survey questions 14-22). The instructional congruence variable was the

combined score of Likert scale responses on the instructional congruence construct (survey questions 23-28). High scores on the burnout variable indicated a high degree of burnout and high scores on the instructional congruence construct indicated high degrees of instructional incongruence. This hypothesis was examined for three groups within the sample: 1) all students, 2) first semester students only, and 3) third semester students only.

Hypotheses four and five were examined using Mann-Whitney U tests. The independent variables for both hypotheses were the level of the course (first or third semester) and the dependent variables were the combined score of Likert scale responses on the instructional congruence (survey questions 23-28) and burnout (survey questions 14-22) constructs respectively.

Hypothesis six was examined using a Mann-Whitney U test. Because this hypothesis was related to pre-college preparation for music theory, the sample consisted of first semester students only. The independent variable was the presence or absence of music theory instruction prior to college. This variable was created using the responses to Question 11: “What experience, prior to college, best prepared you for college music theory?” Students who indicated a positive response to one or more of the following options were grouped in the “yes” category: 1) high school Advanced Placement (AP) theory class, 2) other (non-AP) theory class, or 3) private theory teacher. The dependent variable was the combined score of Likert scale responses on the instructional congruence construct (survey questions 23-28).

CHAPTER IV

RESULTS

Institution Demographics

The population for this study consisted of students enrolled in first and third semester music theory courses at four four-year colleges in the upper Midwest. Information regarding the instructors and courses was collected via a brief instructor information sheet included in the packet of surveys for each institution. Among the four institutions, a total of six sections (classes) of first semester music theory and four sections of third semester music theory participated in the survey. Of these classes, eight were taught by faculty members and two were taught by graduate teaching assistants (GTAs). Additionally, the two sections taught by GTAs were first semester courses.

Of the four institutions, three indicated that a diagnostic test was given to first semester students but none of the institutions required a passing grade on a test as a prerequisite to course entry. All institutions used a diagnostic test that was created by either the instructor or another faculty member.

Participant Demographics

Participants in this study consisted of students enrolled in first and third semester music theory courses at four four-year public institutions in the upper Midwest. A total of 179 surveys were distributed to students and 171 were returned, representing a 95.5%

response rate. Among the four institutions, a total of 38 students (18%) were absent from class on the day the surveys were administered and did not have an opportunity to participate. Of the 171 student participants, 144 (66%) were enrolled in a first semester level music theory course and 73 (34%) were enrolled in a third semester course.

Most of the participants (82%) were music majors. The remainder indicated “music minor” (9%) or “other” (9%). Additionally, most of the student participants were of freshman (48%) or sophomore (34%) college status. A summary of the frequencies and percentages of the college status of all participants is presented in Table 4.

Table 4. Frequencies and Percentages of Student Participant College Status.

Status	<i>f</i>	%
Freshman	82	48
Sophomore	58	34
Junior	19	11
Senior	8	5
Other	4	2
Total	171	100

The prevalence of students of freshman and sophomore status was to be expected because the music theory courses used in this study are typically taken by students in their first and third semester respectively. The incidence of responses of junior and more advanced college status can be explained by a variety of situations.

The case of advanced status (sophomore or higher) of students in first semester courses can be explained by (but is not limited to) a few common situations. First, students sometimes enter their first year of studies after they have accumulated prior

college credit either while still in high school which elevates their credit status to sophomore even though they are in their first year on campus. Additionally, students may not enter their music degree program until their second year on campus. This situation could be explained by a change of major, or a requirement to complete prerequisite or remedial course work.

Advanced college status of students enrolled in a third semester course may be explained by the same situations described above. In addition, students may have previously failed and had to re-take a music theory course in the sequence. Older than average students with prior coursework completed or students completing a second degree are additional possible situations that can affect college status.

Of the 139 music major respondents, 78 (56%) were music education majors, 22 (16%) were music performance majors and 17 (12%) were majoring in music within a Bachelor of Arts program. Double majors, consisting of combinations of the above three options accounted for 15 respondents (11%). A summary of the degree programs of music major respondents is found in Table 5.

Table 5. Frequencies and Percentages of Respondent Degree Program.

Degree Program	<i>f</i>	%
Music Education	78	56
Music Performance	22	16
Bachelor of Arts (BA)	17	12
Other	7	5
Double majors	15	11
Total	139	100

Students enrolled in a music degree program typically declare a primary or “major” instrument. For most students, their primary instrument is the one upon which they receive individual lessons and perform most often. Of the 171 participants, most (45%) indicated voice as their primary instrument. Students playing woodwind instruments comprised 18% of the sample followed by brass players (15%) and pianists (10%). String players and percussionists each represented 6% of the total. A primary instrument was not indicated by 4 participants (2%). A summary of the frequencies and percentages of primary instruments is found in Table 6.

In addition to indicating a primary instrument, student participants were asked to indicate the number of years they had studied on their instrument. Of the 167 participants that indicated a primary instrument, 107 (64%) were enrolled in first semester courses and 59 (35%) were enrolled in third semester courses. A summary of the measures of central tendency for the number of years of study on participants’ primary instrument (for those indicating a primary instrument) is presented in Table 7.

To assess the relationship between instructional congruence and pre-college experience in music theory, student participants were asked to indicate the experiences prior to college that best prepared them for their college music theory courses. The choices included private teacher of primary or secondary instrument, private music theory teacher, high school advanced placement (AP) or other music theory class, and high school instrumental (band or orchestra) or choral program. In addition, an open (“other”) response option was included.

Table 6. Primary Instrument of Participants.

Instrument	<i>f</i>	%
Voice	77	45
Alto saxophone	3	2
Saxophone	10	6
Clarinet	6	4
Flute	10	6
Bassoon	1	1
Oboe	1	1
Woodwind Instrument Total	31	18
Trumpet	12	7
French horn	3	2
Trombone	3	2
Euphonium	2	1
Tuba	5	3
Brass Instrument Total	25	15
Piano	17	10
Violin	4	2
Cello	1	1
Bass	1	1
Bass guitar	1	1
Guitar	4	2
String Instrument Total	11	6
Percussion	6	4
No Instrument Indicated	4	2
Total	171	100

Table 7. Number of Years of Study on Primary Instrument.

Course	<i>M (SD)</i>	<i>Mdn</i>	Mode
First Semester (<i>n</i> =107)	6.8 (3.7)	7	8
Third Semester (<i>n</i> =59)	8.3 (3.7)	9.5	10

Students were asked to only indicate one option, but many chose to indicate multiple responses. For this reason, as well as the desire to collapse this information into a two-level variable for analysis, the data were re-categorized and grouped according to the presence or absence of music theory instruction prior to college. If students indicated a positive response to any of the options involving music theory (high school class or private theory teacher) they were grouped into the “theory” category and if they did not, they were grouped as “no theory.” In addition, students enrolled in a third semester course were removed from this analysis, because the intent was to assess instructional congruence in first semester college music theory based on students’ experiences prior to college.

Looking at first semester students only, 111 participants answered this question. Of these, 23 (21%) indicated that they had received some kind of music theory instruction prior to college and 88 (79%) indicated that they did not.

The demographic section of the instrument also included a section on parental education. Students were asked to indicate the highest level of education for each of their parents or guardians by choosing from one of six options ranging from “some high

school” to “doctoral degree.” This question was included based on Bean’s (1982) finding that parental education was a factor in attrition.

Although parental education had been identified by Bean (1982) as a factor in attrition, when data for this question were initially analyzed, it was apparent that the possible responses created too many groups with too few responses in each to glean any kind of meaningful findings. For this reason, this question was excluded from the final analysis for the present study.

Instrument Reliability and Validity

Although it can be difficult to establish reliability and validity with a researcher created instrument, the instrument used in this study demonstrated very good internal consistency with Cronbach Alpha levels for constructs and sub-constructs ranging from .70 to .86. A comparison of the internal consistency for the pilot and present study is presented in Table 8.

Table 8. Comparison of Cronbach Alpha Levels by Construct for Pilot and Study.

Construct	Survey Questions	Cronbach Alpha (Pilot)	Cronbach Alpha (Study)
Emotional Exhaustion	14-16	.70	.72
Depersonalization	17-19	.80	.88
Personal Accomplishment	20-22	.75	.82
Instructional Congruence	23-28	.80	.86

In addition to measuring the internal consistency of the instrument, a Spearman correlation was performed to compare responses on the combined burnout construct (survey questions 14-22) with the responses to Question 12 “Do you currently feel ‘burned out?’” and Question 13: “If YES, how “burned out” do you feel?” Question 12

was answered with a binary yes/no response option and Question 13 was answered with a Likert scale response ranging from 0 (not burned out) to 10 (extremely burned out). Since a response of “0” on Question 13 indicated no burnout, all responses of 0 on this question were excluded from the analysis, leaving a total of 111 participants indicating a burnout level of 1 or greater.

The correlation between participants’ explicitly stated burnout level as measured by the Likert scale response and their perceived level of burnout as measured by the burnout construct research questions (survey questions 14-22) was statistically significant, $r_s = 0.43$, $p < .001$.

As previously mentioned, the questions contained in the burnout construct of the instrument were adapted from the Maslach Burnout Inventory. This instrument is well-established and significant support for its reliability and validity has been established in the literature (Eg. Byrne, 1993; Koeske & Koeske, 1989; Richardsen & Martinussen, 2004).

Analysis of Hypotheses

Hypothesis 1

Hypothesis one predicted that students who indicated that they did not plan to continue in a music theory course would indicate higher levels of burnout than those who did. A Mann-Whitney U test was used to compare intent to continue (survey question 8) to the combined scores on the burnout construct (survey questions 14-22) for all participants ($n=169$). A total of 139 students (82%) indicated a response of “yes,” meaning that they did plan to continue in a music theory course and 30 (18%) indicated a

response of “no.” Of the students who did not plan to continue, 25 (83%) were enrolled in a first semester course and 5 (17%) in a third semester course.

The top two reasons indicated for not continuing for all participants were:

1) course not required for major/ degree program (50%), 2) changing major (17%).

Of those students not continuing, a majority (80%) indicated that they expected to receive a grade of an A or B in the current music theory course in which they were enrolled.

The median response on the burnout construct for the “yes” group ($n=139$) was 24.15 and the “no” group ($n=30$) was 28.67. Although the students who indicated that they did not plan to continue in music theory did have a higher median score (indicating a higher level of burnout) than those that did plan to continue, this result was not significant at the .05 level, $U = 1841.0$, $p = .32$, $r = -0.08$.

Hypothesis 2

Hypothesis two predicted that students who indicated that they did plan to continue in a music theory course would indicate lower levels of instructional incongruence. A Mann-Whitney U test was used to compare intent to continue (survey question 8) to the combined scores on the instructional congruence construct (survey questions 23-28) for all participants ($n=169$). The median response on the instructional congruence construct for the “yes” group ($n=139$) was 14.60 and the “no” group ($n=30$) was 19.75. This result was statistically significant at the .05 level, $U = 1490.0$, $p = .01$, $r = -0.19$.

The same analysis was performed for the two subgroups within the sample. Looking at students enrolled in a first semester course ($n=110$), the median response on

the instructional congruence construct for the “yes” group ($n=85$) was 14.38 and the “no” group ($n=25$) was 22.00. This result was statistically significant at the .05 level, $U = 719.0, p = .01, r = -0.23$. Looking at students enrolled in a third semester course ($n=59$), the median response on the instructional congruence construct for the “yes” group ($n=54$) was 15.00 and the “no” group ($n=5$) was 16.00. This result was not statistically significant, $U = 122.0, p = .74, r = -0.05$. In addition, the sample size for the “no” group in this analysis was very small.

Hypothesis 3

Hypothesis three predicted that student participants reporting high levels of burnout would also report high levels of instructional incongruence. The burnout variable was the combined score of Likert scale responses on the burnout construct (survey questions 14-22). The instructional congruence variable was the combined score of Likert scale responses on the instructional congruence construct (survey questions 23-28) for the entire sample ($n=170$). High scores on the burnout variable indicated a high degree of burnout and high scores on the instructional congruence construct indicated high degrees of instructional *incongruence*. A Spearman correlation indicated a statistically significant correlation between the two variables, $r_s = 0.40, p < .001$.

The same analysis was performed for the two subgroups within the sample. The correlation between variables described above in first semester course students ($n=111$) was statistically significant, $r_s = 0.45, p < .001$. This correlation was statistically significant for third semester students ($n=59$) as well, $r_s = 0.31, p = .02$.

Hypothesis 4

Hypothesis four predicted that students enrolled in a first semester music theory course would report higher levels of instructional incongruence than students enrolled in a third semester course. A Mann-Whitney U test was used to compare course level (first or third semester) to the combined scores on the instructional congruence construct (survey questions 23-28) for all participants ($n=170$). The median response on the instructional congruence construct for the first semester group ($n=111$) was 15.86 and the third semester group ($n=59$) was 15.22. This result was not statistically significant, $U = 3149.0$, $p = .68$, $r = -0.03$.

Hypothesis 5

Hypothesis five predicted that students enrolled in a first semester music theory course would report higher levels of burnout than students enrolled in a third semester course. A Mann-Whitney U test was used to compare course level (first or third semester) to the combined scores on the burnout construct (survey questions 14-22) for all participants ($n=170$). The median response on the burnout construct for the first semester group ($n=111$) was 24.00 and the third semester group ($n=59$) was 25.86. This result was not statistically significant, $U = 2975.5$, $p = .33$, $r = -0.08$.

Hypothesis 6

Hypothesis six predicted that students enrolled in a first semester music theory course who had received instruction in music theory prior to college would report lower levels of instructional incongruence than students who had not. Due to the fact that the research question related to this hypothesis addressed experience in music theory prior to college, the population for this analysis consisted of only those students enrolled in a first

semester course ($n=111$). Of these students, a majority of 88 (79%) had *not* received prior instruction in music theory and only 23 (21%) had.

A Mann-Whitney U test was used to compare the responses of two groups (“theory” and “no theory”), of first semester students to the combined scores on the instructional congruence construct (survey questions 23-28). The median response on the instructional congruence construct for the “theory” group ($n=23$) was 11.75 and the “no theory” group ($n=88$) was 18.48. This result was statistically significant at the .05 level, $U = 589.0, p = .002, r = -0.29$.

A summary of the results of all Mann-Whitney U tests can be found in Table 9.

Table 9. Summary of Mann-Whitney U Test Results.

Hypotheses	Sub-group	Groups	<i>n</i>	<i>Mdn</i>	<i>U</i>	<i>p</i>	<i>r</i> **
1		Continue Not Continue	139 30	24.15 28.67	1841.0	.32	-0.08
2	All	Continue Not Continue	139 30	14.60 19.75	1490.0	.01*	-0.19
	1 st Sem.	Continue Not Continue	85 25	14.38 22.00	719.0	.01*	-0.05
	3 rd Sem.	Continue Not Continue	54 5	15.00 16.00	122.0	.74	-0.05
4		1 st Sem. 3 rd Sem.	111 59	15.86 15.22	3149.0	.68	-0.03
5		1 st Sem. 3 rd Sem.	111 59	24.00 25.86	2975.5	.33	-0.08
6		Theory No Theory	23 88	11.75 18.48	589.0	.002*	-0.29

*Significant at the .05 level

** Effect size

CHAPTER V

DISCUSSION

Introduction

The purpose of this study was to investigate the relationships among attrition, burnout, and instructional congruence in a population of music theory students and to make comparisons between first and third semester students regarding these relationships. Of particular interest in this investigation was the relationship between instructional congruence and burnout, as this relationship has not been previously investigated in the literature. An additional purpose of the study was to investigate the relationship between pre-college preparation for music theory and instructional congruence. The study was conducted by surveying music theory students enrolled in first and third semester music theory courses at four universities in the upper Midwest regarding their perceptions of burnout and instructional congruence.

This study assessed burnout and instructional congruence through self-reported student perceptions. These perceptions may not be static and may be influenced by a variety of outside factors, including strength and energy levels, sense of confidence, fears and desires (Koch, 2010). However, a student who perceives high levels of burnout or instructional incongruence represents a cause for concern as they may lead to the student leaving the course sequence, degree or university.

Summary of Findings

Pre-college Preparation and Instructional Congruence

In this study, a majority (79%) of students enrolled in first semester music theory courses indicated that they had not received any prior training in music theory before entering college. Students considered to have “prior training” were those who indicated that they had taken a high school Advanced Placement (AP) theory class, or another (non-AP) theory class, or those who had studied with a private theory teacher. For the relatively small number of students ($n=23$, or 21%) who did have instruction in music theory prior to college, it was found that these students reported lower levels of instructional incongruence in their current music theory course.

Differences Between First and Third Semester Students

The results of the analysis indicated no significant difference between students enrolled in first semester and third music theory courses in their perceptions of instructional congruence and burnout. The mean values for responses on the instructional congruence construct were slightly higher for first semester students (indicating a higher level of incongruence) as predicted, but this difference did not reach statistical significance. The mean responses on the burnout construct were actually higher for the third semester group, which was the opposite of what was predicted, but again the difference did not reach significance.

Relationships Among Attrition, Burnout, and Instructional Congruence

Looking at the relationship between burnout and attrition, there was no significant difference in burnout between those students who indicated their intent to continue in a music theory course and those who did not. Of the relatively small number (18%) of

students who indicated that they did not intend to continue, the top reason given was that the course was not required for their degree.

The results of the analysis of the relationship between attrition and instructional congruence showed that students intending to continue in a music theory course reported lower levels of instructional incongruence than those who did not intend to continue into the next semester. This result reached significance for the sample as a whole as well as the first semester course subgroup, but was not significant for the third semester group.

Finally, the results of the analysis of the relationship between burnout and instructional congruence showed a statistically significant relationship between these constructs. Specifically, high levels of perceived instructional incongruence were associated with high levels of perceived burnout for all participants as well as the two course-level subgroups.

Discussion

Pre-College Preparation for Music Theory

Based on the demographics of the sample, the “typical” student in the study was a music major of freshman or sophomore college status enrolled in a music education degree program in the upper Midwest. This student was most commonly a voice major with approximately seven years of performance experience prior to college, but no prior training in music theory. Interestingly, this student almost exactly mirrors the type of student Bowman (1984) found most likely to be assigned to remedial music theory courses. If Bowman’s student profile is indeed representative of students who exhibit a significant enough deficiency to necessitate remedial work, then a majority of the students in this study would fall into the same category.

Although a majority of the first semester students in the sample for this study entered the course sequence with little to no prior training in music theory, the presence of a few students who had a music theory course prior to college in the same class may present an instructional challenge. As indicated in the literature, music theory instructors are typically not adequately prepared for the task of teaching music theory in general (Anderman, 2011; Shanefield, 2011; Zbikowski & Long, 2004), let alone for dealing with an advanced challenge such as this.

In this study, instructional incongruence was defined as instruction that was too difficult or above the student's level of understanding. The results of this study suggest that students who have had a music theory course prior to college experience instruction that is more at their level of understanding than those who have not. This result in itself is not surprising as it makes intuitive sense that this would be the case. It is also in line with the findings of Livingston and Ackman (2003) who found that students who had taken a music theory course in high school felt better prepared for college music theory courses than those who had not.

However, taking into account that students with this type of previous experience represented a minority (21%) of the sample, it illuminates a significant problem. If only the students with prior knowledge feel that the instruction is congruent, this means that the instruction seems to be incongruent (too difficult) to at least some degree for over three quarters of students. While the relative congruence of instructional level can be influenced by a student's prior knowledge, it can also be influenced by other factors.

For example, a student who does not choose to complete the course work simply due to laziness would most likely perceive the instruction as incongruent because they

have not acquired the necessary practice in the prerequisite concepts. In addition, absenteeism can be a related factor. In this study, 18% of students enrolled in the courses at the participating institutions were absent on the day the survey was administered. If this statistic were to be the norm for all classes, it would mean that about a fifth of students would be missing out on instruction on any given day. As discussed previously, the study of music fundamentals is hierarchical in nature, so missing out on information and practice on one level may make understanding of more advanced concepts difficult.

The reasons for this situation are many and varied. First, as discussed above, instructors may not recognize or have the ability to effectively deal with the diversity in students' prior knowledge present in their classrooms. Lacking formal training in pedagogy, they may revert to teaching as they themselves were taught (Vega & Taylor, 2005; Weimer, 1990; Zbikowski & Long, 1994), which often means using a "traditional," lecture approach (Bain, 2004; Davis, 2001) and does not necessarily reflect the most effective practice for this situation.

In this study, two of the six first semester music theory courses were taught by graduate teaching assistants. GTAs are generally the least experienced instructors in a department and may be even more prone to the propensity of teaching as they were taught. It has been established that many faculty members are not prepared to teach music theory even though music theory as a subject may be their specialty. Preparation and training of faculty is important for increasing instructional congruence. The decision to assign the least experienced instructors to teaching freshman music theory courses may only exacerbate an already problematic situation.

Second, instructors may make incorrect assumptions about what their students already know, and in turn base their curriculum and pacing on these assumptions. These assumptions may be based on the instructor's personal experience (i.e. what he or she knew as a student at the same level), or may be based on those implied by the textbook used in the course.

As an example, Nelson (2002) found that the textbook used most often by entry-level music theory instructors was *Tonal Harmony* (Kostka & Payne, 2000). This textbook includes a section on fundamentals at the beginning, but relatively few exercises for students to practice the concepts. Assuming a schedule of three classes per week, an instructor using this textbook and its accompanying workbook and assigning one to two workbook exercises per class period would cover the entire section on music fundamentals in about four weeks. Nelson's (2002) survey provides support for this pacing, as most institutions indicated that music fundamentals were reviewed or taught in the first two to four weeks of first semester music theory courses.

One of the institutions in this study used the Kostka and Payne (2000) textbook, but between the first and third semester courses there were five additional textbooks represented as well. One of the instructors from the institution that used the Kostka and Payne textbook indicated that the first nine chapters were covered in the first semester, which would necessitate an even more aggressive pace than the one described above.

This curriculum and pace may be sufficient and appropriate for students with prior knowledge in music theory requiring merely a review of music fundamentals. However, it is not ideal for students attempting to learn the concepts for the first time, does not reflect best practices in music theory instruction regarding the teaching of

fundamentals (Bowman, 1984; Damschroeder, 1982; Ehle, 1982; Rogers, 2000, 2004), and may result in the type of instructional incongruence indicated by the results of the present study.

Differences Between First and Third Semester Students

Students enrolled in a first semester music theory course made up approximately two thirds of the sample, with the remaining third represented by third semester course students. The difference in numbers from first to third semester courses can be attributed to students either choosing to discontinue in the major or not earning a passing grade in a prerequisite course, or to degree requirements. For example, music majors in degrees such as music education and music performance are typically required to complete a four-semester music theory sequence, whereas music minors may only be required to complete the first two (NASM, 2013). Thus, not all students entering a first semester music theory course are required by their degree programs to complete four semesters of coursework, and would not be expected to enroll in upper level courses.

In this study, a total of 25 out of 111 first semester students indicated that they did not intend to continue in a music theory course in their second semester, which represents a 23% attrition rate from the course sequence. This finding is in line with Smith's (1992) observation of an approximate 30% attrition rate between first and second semester for music theory students. By comparison, only 5 out of 59 students enrolled in a third semester course did not intend to continue, which represents a much lower (8%) attrition rate at this point in the four semester sequence.

Because students enrolled in third semester courses can be expected to have completed two previous semesters of coursework in music theory, a higher level of

homogeneity in skill level could also be expected in this group. From an instructional standpoint, it is much easier to teach to a class in which students have a more uniform level of prior knowledge. Learners can also be expected to experience a higher degree of instructional congruence in this situation. The results of the study, although not statistically significant, may suggest that this difference in instructional congruence exists, as first semester students indicated a slightly higher level of instructional incongruence than third semester students.

Additionally, differences were found between first and third semester students related to perceptions of burnout, although not as expected. It was predicted that because first semester students have little experience with the music theory course content as well as college in general, they might experience higher levels of burnout than third semester students. The rationale for this hypothesis was taken from the literature on burnout in the workplace, which indicated that burnout can be caused by a mismatch between the job and the employee (Maslach & Leiter, 1997). This led to the conjecture that the job and employee could be equated with the course content and the student. Because first semester students would be least familiar with both course content and other aspects of college life, it was predicted that this mismatch would be strongest in first semester students and may lead to an increased risk of burnout.

The results of the analysis did not indicate a statistically significant difference between the groups, but interestingly, third semester students in the sample reported slightly higher levels of burnout than first semester students. This result is contrary to what was expected, which may indicate that burnout is not necessarily a result of a mismatch between the student and the level of instruction but may be due to other factors.

This may be explained by the fact that students in more advanced stages of a music degree typically have more demands placed on them in terms of time as well as more advanced academic and performance based requirements, which may factor into perceptions of burnout. In addition, given that burnout is a product of a mismatch between person and task, but also affected by time, it makes sense that sophomores who have spent a longer time in intensive music study would feel more burned out.

Relationship Between Burnout and Attrition

The literature on burnout in the workplace has established a connection between burnout and employee turnover (Maslach, Schaufeli & Leiter, 2001). For this reason, as well as the intuitive conceptual relationship between burnout and drop out, it was predicted that students in this study who indicated that they did not intend to continue in a music theory course would report higher levels of burnout than those who did intend to continue. In actuality, the findings of the present study showed no significant difference between the groups intending and not intending to continue, although the latter group did have a slightly higher burnout score.

In this study, a total of only 30 students out of 169 (18%) indicated that they did not intend to continue in a music theory course in the next semester. A majority of these students (83%) were enrolled in a first semester course and a third of all students not continuing were music majors. It should be noted that because most music degrees require all four semesters of the music theory sequence for majors, an intent to leave the course sequence by a music major means that the student is also leaving the major.

As noted above, first semester students may actually experience burnout to a lesser degree than third semester students because they have not spent as much time in

the major. Although the attrition rate from the course sequence is higher for first semester students, their reasons for leaving may have little to do with burnout.

Of the students indicating their intent to leave, eight (27%) cited “changing majors” as the reason. Of these eight students, five were music majors, two were music minors and one was neither a major or minor. Additionally, all three third semester students not intending to continue were music education majors.

The reasons for changing majors are varied, and may be attributed to not enjoying the more major-specific upper level courses, changing career paths, or other personal reasons. In the case of music education majors, it is not uncommon for students to change majors after the second year in a program as it is at this point that students encounter more professionally-oriented courses such as conducting, instrumental and choral methods, and observation in the field.

Although the students mentioned above left after completing three quarters of the music theory course sequence, their decision to change majors came at a relatively early point in their degree program. Due to the point at which the students in the study decided to leave, it is unlikely that burnout could be considered a factor.

The findings of the present study may be more closely in line with those of Deary, Watson, and Hogston (2003), who found that aspects of personality and not burnout were more closely related to attrition from the degree program in a population of college nursing students. In this study, students who were less agreeable and conscientious were more likely to discontinue in the program (Deary, Watson, & Hogston, 2003, p. 77). They may also suggest that the employee and job relationship is not as similar to the student and course relationship as conjectured. The assumption implied by the original

hypothesis is that burnout causes students to leave, while in fact attrition in students may occur due to other factors unrelated to burnout. The present study did not assess the relationship of aspects of personality to burnout and attrition, but this would be an area worthy of future study.

Relationship Between Instructional Congruence and Attrition

Congruence between the individual and the institution was investigated by Boshier (1973) and found to be a determining factor for attrition from the institution. The present study extended this concept to the instructional situation and investigated the relationship of instructional congruence to attrition from the course sequence. Although admittedly there is a difference between attrition from the institution and attrition from a course sequence or program, the results of the present study may suggest that in general a mismatch, or incongruence of some kind may be related to, or a possible cause for attrition.

The results of the present study showed that students who indicated an intent to continue in a music theory course reported lower levels of instructional incongruence than those intending to leave. Stated another way, students who planned to continue in music theory indicated that the instruction they were currently receiving was more ideal, or congruent, than their counterparts.

These results are in line with other studies on attrition, which show a connection between the instructional situation and attrition from a course sequence or program. For example, Daempfle (2003) found that the interaction of instructional factors as well as differing expectations of high school and college faculty were a contributing factor to program attrition for science, engineering and math students. Similarly, Lasry, Mazur,

and Watkins (2008) studied the impact of peer instruction (PI) methodology in college physics and found that it was particularly beneficial for those students who lacked background knowledge and had the additional effect of reducing attrition from the course.

Looking at the results broken down by course level, it is interesting to note that the results were significant for first semester course students, but not third semester students. On the surface, this may seem to indicate that the connection between instructional congruence and attrition is stronger for first semester students. Conceptually, it makes sense that third semester students would experience higher levels of congruence than first semester students, as they are starting from a more homogeneous level of understanding. However, it should be noted that the “no” group (on the intent to continue question) for third semester students was very small (only 5 students total) and so any such comparison or interpretation may not be accurate or indicative of the situation for the population at large.

It should also be noted that the results of this study do not show a causal relationship between instructional incongruence and attrition. That is, students did not indicate their intent to leave because the instruction they were receiving was not ideal. In fact, only one student out of 30 indicated that he or she did not intend to continue because he or she did not expect to pass the current course. However, the fact that those students intending to leave, in particular after their first semester, indicated a higher level of instructional incongruence is cause for concern for both instructors and departments.

As stated above, the reasons given most often for leaving by first semester students were that a further music theory course was not required for their degree or that

they were changing majors. Music majors in all music degree programs are typically required to take more than one semester of music theory (NASM, 2013). Thus, the indication by a student that further study in music theory is not a degree requirement is somewhat confounding if the student is a music major or minor, as the second semester is a program requirement. Therefore, the response of “course not required for major” may actually indicate a change of major for these students. Of the 25 students not continuing, about half were majors or minors and the other half indicated that they were neither a music major or minor.

It is somewhat unusual, although not unheard of, for a student who is neither majoring nor minoring in music to take the first semester music theory course. As shown by the results of this study, institutions do not necessarily require a test or prerequisite for the first semester course, so presumably any student who wishes to may enroll. It is not surprising however, that most of the students not intending to continue were first semester students and over half of these were non-majors. This may indicate that a misperception of course content and difficulty may exist. For example, a student who is taking the course out of interest and not for his or her major may be less committed to the course work or lack the necessary level of background knowledge to be successful.

Pedagogical implications. The fact that students intending to leave the music theory course sequence indicated higher levels of instructional incongruence than those who did not, in particular at the first semester course level, has significant implications for music theory pedagogy. At the course level, instructional strategies and interventions aimed at overcoming the diversity in prior knowledge would increase instructional congruence and may result in the retention of more students.

One such instructional strategy that has been in use for some time in music theory is the use of computer-assisted instruction, or CAI (Eg. Sterling, 2002; Wilson, 1981). This instruction is often designed as a remedial strategy, to be used by students independently outside of class in an effort to “fill in the blanks” and make up for their gaps in prior knowledge (Marvin, 2012). The efficacy of such a design is dependent on students acknowledging that they are in need of remedial work and being motivated to spend the requisite amount of time utilizing the resources. Given the excessive time demands already placed on music majors, this may be a difficult task for students from a time management perspective.

An additional strategy for assisting students who lack background knowledge is that of peer tutoring. Although not widely studied in relation to music theory, it is an instructional strategy that is utilized in other subject areas at the college level. Among the benefits of peer learning, McKeachie and Svinicki (2006) list improved ability to work with others, better cognitive outcomes, higher-level questioning, reduced absenteeism and the opportunity to elaborate using the language of the discipline (p. 192).

The trend toward incorporating active learning approaches at the college level has been developing for some time (Barr & Tagg, 1995; Berry, 2008; Bonwell & Eison, 1991; Foyle, 1995; Lammers & Murphy, 2002; Vega & Taylor, 2005). As a subset of active learning, cooperative learning approaches have, and continue to be used at the college level (Johnson & Johnson, 1994; Slavin, 1991, 2011). Faculty who use active learning techniques have noted that these methods increase student engagement (Umbach & Wawrzynski, 2005). Increasingly, instructors in a variety of disciplines are using

pedagogical methods that capitalize on peer interaction and problem solving to individualize instruction and engage learners in real-world application of concepts. This trend is particularly prevalent in pedagogical techniques used in college science, technology, engineering and math (STEM) courses.

One prominent example is the Student-Centered Activities for Large Enrollment Undergraduate Programs or SCALE-UP method devised by Robert Beichner at North Carolina State University for use in STEM courses (Breslow, 2010). In this technique, students are assigned to heterogeneous groups and sit at specially designed tables in a large lecture room. Students use class time to work collaboratively on real-world problems, which is difficult using the traditional large lecture course model (Gaffney et al., 2008).

This technique is an example of another current active learning trend: the “flipped” classroom. In a flipped classroom, students are asked to review lecture materials outside of class and use class time to actively engage in learning activities based on the lecture materials (Hughes, 2012). This technique allows students to interact with peers and the instructor within the class period so that clarifications and additional teaching can take place on an individual level.

Although not largely adopted or documented in music theory pedagogy, active learning approaches could be of significant benefit; in particular to those students for whom the course content is not congruent. Comparisons between music fundamentals and both math and language learning have long been drawn; in particular because of the hierarchal nature of the subject matter and the fact that the learning and use of a subject-specific nomenclature is involved. Marvin (2012) recently highlighted this parallel, and

suggested that music fundamentals instruction could be informed by mathematics pedagogy.

LeMire, Melby, Haskins, and Williams (2012) noted that the hierarchal nature of mathematics learning puts students at a greater risk for “instructional level misalignment,” as the mastery of basic skills is necessary in order to achieve higher order understanding (p. 68). Additionally, they note that whole-group instruction, in which the instruction level is aimed at the central level of prior knowledge of the group, also contributes to misalignment (p. 66). The study of music fundamentals is similar to that of mathematics, as a lack of understanding of basic concepts will prevent a student from acquiring the necessary foundation upon which more advanced concepts are built. In addition, college music theory is commonly taught as a traditional lecture course, which puts students at an additional risk of misalignment from whole group instruction.

As mentioned above, Lasry, Mazur, and Watkins (2008) found that peer instruction (PI) methodology in college physics was beneficial for those students who lacked background knowledge. In addition, and perhaps most interestingly, PI students in their study with less background knowledge were found to gain as much as students with more background knowledge in traditional instruction; effectively demonstrating that the teaching methodology could overcome the variance in prior knowledge. In addition to demonstrating greater effectiveness, this methodology also reduced attrition from the course.

The results of the present study suggest that students who intend to leave a course sequence or program experience more instructional incongruence than those who do not. If the instructional method can influence attrition, then it makes sense that instructional

methods aimed at increasing congruence may result in retention of more students.

Departmental implications. From an instructional standpoint, it is easier to teach a homogenous group than a heterogeneous one. As mentioned above, it is possible to overcome variance in prior knowledge through active and cooperative instructional methods, but in music theory in particular these methods are not the norm. A music department with retention of first year students as its goal can increase instructional congruence, and ultimately retention, by implementing policies and procedures aimed at increasing homogeneity in first semester music theory courses. One way of achieving this is by implementing an entrance requirement for music theory whereby students must pass a music entrance exam in order to be admitted (to either the course or department).

An entrance requirement would exclude students with little background in music theory and admit only those with a secure grasp of music fundamentals. If the students excluded from the first semester music theory course are allowed admittance to the department, then a remedial course may be offered for these students. This situation is in fact the policy in some music departments, although the institutions in the present study all adopted an open enrollment policy.

Remedial courses serve the purpose of excluding lower achieving students from the regular music theory course and thus increase the homogeneity of the latter group. This may work well for the instructor and students in the regular course, but may have adverse consequences for the students required to complete remedial work. The requirement of completing a remedial course may put students perpetually behind their peers in their program (Marvin, 2012) and cause undue stress and negative emotional consequences (Weaver, 1996). In addition, Marvin (2012) noted that offering additional

sections of remedial fundamentals courses puts a strain on faculty resources, which may limit the feasibility of this option.

Rather than offer a remedial course that would place students behind in their program, an alternate option would be to offer a course in fundamentals prior to the start of the first semester. An example of this is the eTheory course at the University of Rochester Eastman School of Music (Institute for Music Leadership, 2013). This eight-week course is designed to be completed prior to entrance into the music theory sequence and helps students acquire the necessary background knowledge to succeed in the first semester course.

It should be mentioned that another strategy aimed at increasing homogeneity is that of excluding the high achieving students by means of a testing out policy. In some music departments, entering students with a significant amount of background in music theory may opt to test out of one or more courses. This process eliminates the extreme upper end from the regular theory course, thus decreasing the range of abilities present in the class.

In regard to admitting students, music departments must balance access with selectivity. Students are often admitted on the basis of a performance audition but, as was the case for all institutions in the present study, are allowed to enter the music theory sequence without any prerequisite. A department trying to increase its enrollment may not wish to deny admittance to a top performer due to a lack of music theory background. However, the opposite may also be true, and a department that wishes to be more selective may use music theory background as an additional requirement for admission.

If exclusionary policies such as the ones described above are employed by music departments, they may have the beneficial effect of increasing homogeneity in music theory courses and thus instructional congruence. However, this benefit may come with the possible risk of excluding too many students. A department wishing to increase its student numbers could look to instructional methodology, in particular the types of active learning approaches described above, as an alternative means of dealing with diversity in background knowledge and an additional retention tool.

Retention of freshmen should be of particular interest to all departments, but to music in particular. University systems are increasingly being held accountable for graduation rates, as measured by the number of first time, full-time incoming freshmen that graduate in their degree programs within six years (Russell, 2009). Assuming, in the case of music, that a 30% attrition rate from the course (and presumably the major) from first to second semester is expected, a department could elect to admit 30% fewer students if they could assure that all students would be retained.

On the surface, this may seem like a logical proposal, but may not be ideal. In the case of music theory, diagnostic testing procedures may not tell the whole story and may deny access to students who have the potential to succeed simply because they do not have enough prior knowledge in the subject at the outset. In fact, Jones and Bergee (2008) found that diagnostic exam scores were not associated with success in the first year music theory course, and that general scholastic measures such as high school class rank and ACT math scores had stronger associations (p. 93). Similarly, although having taken a music theory course prior to college was in the top three responses, students in Livingston and Ackman's (2003) study cited both high school band and the teacher of

their primary instrument as experiences that best prepared them for college music theory (p. 28).

The results of the present study indicated that those students with training in music theory prior to college experienced lower levels of instructional incongruence than those students with no prior training. Students without theory background may succeed in the course if the teaching method accommodates various levels of prior knowledge. Enhancing congruence through instructional methodology represents a means of increasing retention without interrupting or limiting access to the course sequence.

Relationship Between Instructional Congruence and Burnout

The most interesting and important finding of this study is that of the relationship between instructional congruence and burnout. High levels of instructional incongruence were correlated with high levels of burnout for the entire population, as well as the two course level subgroups, providing statistical support for the conceptual relationship between these two constructs.

The importance of the mental health of music students and the desire for further research into the factors affecting it has been established by NASM (Health Promotion in Schools of Music, 2004; NASM, 2013). Unfortunately, many of the stress-inducing aspects of music programs such as high time commitments and performance pressures cannot be changed and students must simply learn to adapt. The results of the present study suggest that instructional incongruence and burnout are related. Assuming this is the case, then measures taken to increase congruence could have the effect of reducing overall perceptions of burnout. Adopting pedagogical practices that increase

instructional congruence may be one of the few things that can be changed and may have the effect of making a significant impact on students' academic and mental well being.

In addition to expressing concern for the health of music students, NASM recently examined the function of the core music theory curriculum. Marvin (2012) identified the ability to think in music, as well as to read, write and perform music with understanding and artistry as the broad goals of all music theory core curricula (p. 255). She also described the move toward a lecture-lab format in music theory courses to provide students with more hands-on skill practice as a current pedagogical trend (p. 256) as well as the increased use of interactive technology like smartboards and clickers (p. 259). Both of these examples, while not necessarily the norm, represent a move toward more engaging pedagogy with potential to increase instructional congruence and decrease burnout.

Although the pedagogical trends described by Marvin (2012) seem hopeful, it is clear from the literature that music theory faculty are generally ill prepared for the task of teaching music theory in general, and in particular to a heterogeneous group. If departments wish to look to reforming teaching practice as a means of increasing congruence and decreasing burnout, they will need to implement alternative policies and reward systems for faculty.

First, it is important for departments to carefully consider the teaching experience and methodology of instructor assigned to teach first semester music theory courses in particular. The first semester is of utmost importance as it is when the variances in prior knowledge are greatest. It is also a difficult time for students emotionally and socially, as they transition from high school to college. Tinto (1988) describes this transition, stating

that, “The stress and sense of loss and bewilderment, if not desolation, that sometimes accompanies the transition to college can pose serious problems for the individual attempting to persist in college” (p. 444). An experienced instructor who is aware of the importance of this transition period and possesses pedagogical tools for increasing instructional congruence is invaluable on the front lines of a music degree program.

Marvin (2012) in part echoes this sentiment, as she describes departments moving away from hiring GTAs to teach lower level courses and toward assigning music theory specialists to teach in the core (p. 256). As an extension of this idea, I would suggest the assigning of a music theory pedagogy specialist to teach, or oversee the teaching of freshman level courses in particular.

This may sound like a noble strategy, but it is doubtful that music theory instructors are going to take it upon themselves to seek out the kind of training needed to acquire the necessary level of pedagogical skill. The classic teaching, research and service model typically does not provide incentives or rewards to faculty for excellence in teaching. Offering some form of a reward system for faculty that wish to seek out development opportunities in music theory pedagogy may encourage more faculty to do so. Departments could also encourage and provide incentives for faculty to take advantage of the general professional development opportunities offered by instructional development departments on their campuses.

Recommendations for Future Study

As has been established by the review of literature for this study, the field of music theory pedagogy is generally under-researched. As compared to mathematics and language pedagogy, with which it shares similar characteristics and challenges, music

theory pedagogy has not received nearly as much attention. In particular, further research needs to be done on teaching methodology. As a starting point, a survey of instructional techniques used by music theory instructors could be undertaken. The results of such a survey would inform the field by providing a snapshot of the current status quo in instructional methods and identify common characteristics. From this point, the relative efficacy of different methods could be studied.

One of the goals of this study was to study the differences between two groups of music theory students at different points in the course sequence. The choice of first and third semester courses was one of convenience, as these courses are offered in fall semesters. A replication study should be done for all four semesters of music theory to see what differences exist among students at all points in the sequence.

In particular, a replication study of this nature using a larger population may provide support for the hypothesis that differences in instructional congruence do indeed exist over the course of the music theory course sequence. The current study using first and third semester students did not reach a $p < .05$ level of significance, but a larger population may confirm the existence of these differences.

In addition, one of the limitations of the current study was that it did not solicit enough information from students as to the reasons they were planning to leave the course sequence. A qualitative study utilizing an exit interview format may garner more detailed information regarding the reasons that students choose to leave.

The results of this study and others have suggested that instructional congruence is related to attrition. A replication study using a larger population and random sampling would serve the purpose of providing additional support for this relationship in music

theory students. If support for this relationship is found, a study of the teaching methods used in music theory courses and the relative efficacy of these methods in terms of instructional congruence should be undertaken. Knowing which methods produce the highest degree of congruence would have the potential to inform and reform teaching practice and departmental policy.

One of the major contributions of this study to the field is the establishment of a relationship between instructional congruence and burnout; specifically that a high degree of perceived incongruence is associated with a high degree of perceived burnout. A replication study on a larger scale using random sampling would provide further support for this relationship in the population at large. Similar to the recommendation above, if support for the relationship between burnout and incongruence is found, it would be beneficial to study the impact of specific instructional methods on congruence and burnout.

The present study measured instructional congruence, burnout and attrition through participants' self-reported perceptions. A future study might address these variables using objective measures such as test scores and enrollment figures. In addition, to fully understand the relationships among the variables additional factors such as academic ability and personality characteristics should be examined.

Related to this recommendation, a further step would be to standardize an instrument to measure the relationships between attrition, burnout and instructional congruence. The instrument used in this study could be used as a starting point, but adapted to include other variables such as those mentioned above. It could also be

adapted for use in other disciplines to compare the relationship among the variables in different subject areas.

In the present study, one of the initial participating institutions was excluded from the data analysis due to the fact that a majority of its students were online. It was felt that the online environment was significantly different from the traditional, or face-to-face, classroom environment and that students may have different perceptions of burnout and instructional congruence because of it. Given the prevalence and popularity of online courses, a future study might address instructional congruence in the context of this teaching environment to determine what differences may exist between online and traditional courses.

Finally, in addition to studying student perceptions of instructional congruence, a further area of research may be to study faculty perceptions to see what differences exist. For example, it may be the case that an instructor perceives that his or her instruction is at an appropriate level, but students perceive it as too difficult. Identifying any mismatches in perception may shed further light on this particular aspect of music theory learning and further inform pedagogy.

It is somewhat surprising that music theory is so integral to the core curriculum for music degree programs and yet the teaching of music theory has received so little attention. This study has identified important relationships among burnout, attrition and instructional congruence and highlighted the need for further research into these relationships. Perhaps most importantly, it has provided support for the notion that the *how* of music theory teaching is equally, if not more important than the *what*, as it is the method that can contribute to both the cognitive and emotional well being of students.

APPENDICES

Appendix A

College Music Theory Student Survey Instrument

College Music Theory Student Survey

Whitney Berry, Ph.D. Candidate, University of North Dakota

Please do not write your name or any identifying information on these sheets.

<p>1. College status:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><input type="checkbox"/> Freshman</td> <td style="width: 50%;"><input type="checkbox"/> Senior</td> </tr> <tr> <td><input type="checkbox"/> Sophomore</td> <td><input type="checkbox"/> Other</td> </tr> <tr> <td><input type="checkbox"/> Junior</td> <td></td> </tr> </table> <p>2. Degree:</p> <p><input type="checkbox"/> Music major</p> <p><input type="checkbox"/> Music minor</p> <p><input type="checkbox"/> NOT a Music major or minor</p> <p>3. If MUSIC MAJOR, indicate degree (<i>check all that apply</i>):</p> <p><input type="checkbox"/> BA (General)</p> <p><input type="checkbox"/> Performance</p> <p><input type="checkbox"/> Education</p> <p><input type="checkbox"/> Other (specify): _____</p> <p>4. Primary instrument (or voice):</p> <p>_____</p> <p>5. Years of study on primary instrument: _____</p> <p>6. Course name or number of CURRENT Music Theory course in which you are enrolled:</p> <p>_____</p> <p>7. Grade expected in current Music Theory course:</p> <p><input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> N/A</p> <p>8. Do you intend to continue in a Music Theory course next semester?</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>9. If NOT continuing, indicate the reason:</p> <p><input type="checkbox"/> Do not expect to pass prerequisite course(s)</p> <p><input type="checkbox"/> Not required for my major / degree program</p> <p><input type="checkbox"/> Changing major</p> <p><input type="checkbox"/> Transferring to another institution</p> <p><input type="checkbox"/> Leaving college</p> <p><input type="checkbox"/> Other: _____</p>	<input type="checkbox"/> Freshman	<input type="checkbox"/> Senior	<input type="checkbox"/> Sophomore	<input type="checkbox"/> Other	<input type="checkbox"/> Junior		<p>10. Please indicate the highest level of education completed by your PARENT(S)/ GUARDIAN(S):</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">PARENT/ GUARDIAN 1</td> <td style="width: 50%;">PARENT/ GUARDIAN 2</td> </tr> <tr> <td><input type="checkbox"/> Some high school</td> <td><input type="checkbox"/> Some high school</td> </tr> <tr> <td><input type="checkbox"/> Graduated high school</td> <td><input type="checkbox"/> Graduated high school</td> </tr> <tr> <td><input type="checkbox"/> Some college</td> <td><input type="checkbox"/> Some college</td> </tr> <tr> <td><input type="checkbox"/> Bachelor's degree</td> <td><input type="checkbox"/> Bachelor's degree</td> </tr> <tr> <td><input type="checkbox"/> Master's degree</td> <td><input type="checkbox"/> Master's degree</td> </tr> <tr> <td><input type="checkbox"/> Doctoral degree (E.g. Ph. D, M.D.)</td> <td><input type="checkbox"/> Doctoral degree (E.g. Ph. D, M.D.)</td> </tr> </table> <p>11. What experience, PRIOR to college, best prepared you for college music theory? (<i>Choose ONE only</i>)</p> <p><input type="checkbox"/> Private teacher of <i>primary</i> instrument (or voice) Specify instrument: _____</p> <p><input type="checkbox"/> Private teacher of <i>secondary</i> instrument (or voice) Specify instrument: _____</p> <p><input type="checkbox"/> High school Advanced Placement (AP) theory class</p> <p><input type="checkbox"/> Other (non-AP) high school theory class</p> <p><input type="checkbox"/> High school band program</p> <p><input type="checkbox"/> High school orchestra program</p> <p><input type="checkbox"/> High school choral program</p> <p><input type="checkbox"/> Private theory teacher</p> <p><input type="checkbox"/> Other: _____</p> <p>12. Do you currently feel "burned out?"</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>13. If YES, how "burned out" do you feel? (0 = not burned out at all, 10 = extremely burned out)</p> <p style="text-align: center;">0 1 2 3 4 5 6 7 8 9 10</p> <p style="text-align: right;">Please continue to the questions on the next page →</p>	PARENT/ GUARDIAN 1	PARENT/ GUARDIAN 2	<input type="checkbox"/> Some high school	<input type="checkbox"/> Some high school	<input type="checkbox"/> Graduated high school	<input type="checkbox"/> Graduated high school	<input type="checkbox"/> Some college	<input type="checkbox"/> Some college	<input type="checkbox"/> Bachelor's degree	<input type="checkbox"/> Bachelor's degree	<input type="checkbox"/> Master's degree	<input type="checkbox"/> Master's degree	<input type="checkbox"/> Doctoral degree (E.g. Ph. D, M.D.)	<input type="checkbox"/> Doctoral degree (E.g. Ph. D, M.D.)
<input type="checkbox"/> Freshman	<input type="checkbox"/> Senior																				
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<input type="checkbox"/> Doctoral degree (E.g. Ph. D, M.D.)	<input type="checkbox"/> Doctoral degree (E.g. Ph. D, M.D.)																				

	The following questions pertain to your current overall college experience and to your music courses in GENERAL. Please rate your level of agreement with each statement.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
14.	I've become more callous (uncaring, indifferent) toward people since I started college.	1	2	3	4	5	6
15.	I worry that college is hardening me emotionally.	1	2	3	4	5	6
16.	I really don't care what happens to some of my friends and classmates.	1	2	3	4	5	6
17.	I feel emotionally drained from my music courses.	1	2	3	4	5	6
18.	I feel burned out from my music courses.	1	2	3	4	5	6
19.	I feel that I am working too hard in my music courses.	1	2	3	4	5	6
20.	I feel I'm positively influencing other people's lives through my work in my music courses.	1	2	3	4	5	6
21.	I feel exhilarated after working closely with my friends and classmates in my music courses.	1	2	3	4	5	6
22.	My music courses make me feel energized.	1	2	3	4	5	6
	The following questions pertain to your music theory course(s) specifically. Please rate your level of agreement with each statement.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
23.	I am frustrated by instruction in music theory that is above my level of understanding.	1	2	3	4	5	6
24.	I have considered dropping out of a music theory course because it was too difficult for me.	1	2	3	4	5	6
25.	I experience frequent anxiety over not understanding material in music theory.	1	2	3	4	5	6
26.	My music experiences PRIOR to college adequately prepared me for my music theory course(s).	1	2	3	4	5	6
27.	I feel that my music theory knowledge was equal to that of my classmates when I started my music theory course(s).	1	2	3	4	5	6
28.	Music theory is generally easy for me.	1	2	3	4	5	6

Your participation in this study is greatly appreciated. Thank you!

Appendix B Instructor Information Sheet

College Music Theory Student Survey INSTRUCTOR INFORMATION SHEET

Whitney Berry, Ph.D. Candidate, University of North Dakota

Thank you for agreeing to participate in my research study! Please administer the student surveys according to the procedure described below and return the completed surveys to me in the envelope provided.

PROCEDURE FOR ADMINISTERING STUDENT SURVEYS

1. Hand out the surveys and information sheets (pink) to all students.
 2. Explain that they are being asked to **voluntarily** participate in a research study on burnout and attrition (drop-out) among music majors.
 3. Instruct students to read the information sheet and then complete the survey if they so choose. Allow approximately 5-10 minutes for completion of surveys.
 4. Collect all surveys (completed and blank). Students may keep or recycle the information sheets (do not return to me).
 5. Please thank your students for their participation on my behalf!
-

INSTRUCTOR & COURSE INFORMATION:

While your students are filling out the survey, please take a moment to provide me with the following information about yourself and your course:

Institution: _____ Course Name/Number: _____ # of Students: _____

Instructor Name: _____ Academic Rank: _____

Textbook(s) used in this course:

Title and author

Chapters or topics covered this semester

Course pre-requisite(s): _____

For freshman courses ONLY:

Are students given an entrance, screening or placement test before beginning this course? Y N

Are students required to PASS this test in order to enroll in the course? Y N

Is a standardized test used? Y N

If yes, please specify name of test: _____

If no, who is responsible for creating the test? _____

If possible, please attach or e-mail a copy of the entrance/screening test used at your institution.
(whitney.berry@email.und.edu)

Thank you for your participation!

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