Spring 2020

# Effects of Chair Testing in Orchestra on Student Motivation: Student Perspectives and Applications from Motivational Theories

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**EFFECTS OF CHAIR TESTING IN ORCHESTRA ON STUDENT MOTIVATION:**

**STUDENT PERSPECTIVES AND APPLICATIONS FROM MOTIVATIONAL**

**THEORIES**


A Master's Thesis

Presented to

The Graduate College of

Missouri State University




In Partial Fulfillment

Of the Requirements for the Degree

Master of Music, Education




By

Rosanna Christine Honeycutt

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**ABSTRACT**

The purpose of this descriptive study was to examine how string students perceive achievement on chair testing through the lens of attribution and achievement goal motivational self-theories. A teacher survey was administered to identify the goals of chair testing in two high school and seven middle school orchestra classrooms. A student survey was used to collect data in those same classrooms on (a) the reasons why students do and do not do well on chair tests, (b) the perceived goals of chair testing and (c) the ratings of motivation and self-achievement. Qualitative techniques were used to analyze attributions within both motivational frameworks, and frequencies were used to make comparisons within the categories of those frameworks. The most frequent responses were identified as effort-related attributions at 79% and performance goal orientations at 86% within their respective categories. Additionally, 66% of teacher responses about their goals revealed a competitive motivational orientation. Based on the results, I recommend that future research on motivation distinguish between self-effort and other-effort attributional causes and provide suggestions for performance testing, ensemble seating alternatives and restructuring ensemble music curricula as a means to promote intrinsic motivation.

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In the interest of academic freedom and the principle of free speech, approval of this thesis indicates the format is acceptable and meets the academic criteria for the discipline as determined by the faculty that constitute the thesis committee. The content and views expressed in this thesis are those of the student-scholar and are not endorsed by Missouri State University, its Graduate College, or its employees.

# ACKNOWLEDGEMENTS

I dedicate this thesis to all educators looking to find their path.

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# INTRODUCTION

Chair testing has been a long-standing tradition in seating students in instrumental ensembles and with that comes some degree of empowerment, or lack thereof, from the students based on their interpretation of the results. In music, the competition that arises from chair testing is likely to affect a student (Clark, 2012) and how students interpret the results of the chair test is important to study because the attributes made by students will determine their future motivation and subsequently their achievement. Students attribute the reasons for their success and failure to many different things (Weiner, 1974). These range from feelings of inadequacy to rage directed at an evaluator to feelings of accomplishment for hard work (Love, 1971). Psychologists have developed several theories to explain motivation with one of the most prominent being Attribution Theory. Several researchers in music education have drawn upon this theory to recognize the connection between attributions, motivation and achievement. For example, Austin and Vispoel (1998) and Vispoel and Austin (1995) found that ability attributions were linked with cognitive achievement. Chandler, Chiarella and Auria (1988) found that effort attributions were positively correlated with the instrumental students. To explore how students internally process chair testing, I will examine the application of motivational theories, specifically Attribution Theory and Goal Achievement Theories for orchestra classrooms.

## Purpose

The purpose of this study is to identify how string students explain success and failure on a chair test. Student responses on chair testing goals, outcomes and motivation will allow insight

into their perceptions. A secondary purpose of the study is to analyze how these attributes compare with student motivation. Gaining insight into the motivational value of chair testing will be a useful resource for string teachers.

**Significance of the Study**

Chair testing is a practice in many string classrooms; however, competitive structures are not always effective motivational triggers for students (Clark, 2012). This study examines how chair testing is affecting student musicians by discovering what their attributions for success and failure are. The findings of this study provide insight of the effect of chair testing on students' motivation and achievement. The benefit for educators who use class ranking systems based on testing and competition is to gain student perspective. The potential importance of this study for orchestral and other music educators is its focus on the student perspective as a means to enhance motivation and achievement within their classroom.

**Research Questions**

    1.) To what do students attribute the success or failure of a chair test?
    2.) What do students view as the learning goal during chair testing?
    3.) What are the perceived effects of chair testing on a student's motivation?
    4.) Does a student's perceived perception of control of the outcome increase the change of motivation from the student?

**Limitations**

The following limitations of the study were identified:

1.) The study was limited to the orchestra programs in one southwest Missouri district.
2.) The survey reflected teacher and student perceptions and not the observed practices or real grades of teachers or students.
3.) The study procedures were implemented by classroom teachers in their respective classrooms. While uniform procedures were developed, the fidelity of implementation was not monitored.
4.) Participants may have interpreted survey items from multiple perspectives.
5.) Random and unknown factors could have influenced the findings of the study.

**Definition of Terms**

1.) Locus- whether a cause is internal or external to the individual (Maehr, Pintrich & Linnebrink, 2002).

2.) Chair testing- A performance or written test given to a student with the outcome of using the test results to place a student in the ensemble. The "chair" assigned is the prominent outcome of the chair test, which means that the teacher will place the students in rank order from best test results to least best test results.

# REVIEW OF LITERATURE

In the review of literature, I will examine relevant sources and research to help answer the research questions and provide a framework for the exploration of the outcomes of this study. What I am primarily looking to find are to what students are attributing the success or failure of a chair test and if and how their motivation is affected by their perception of control over the outcome. I am also looking to find what they view as the learning goal in comparison with their teacher's learning goal of the chair test. The student perspective can provide a great amount of insight. The reason for looking at these frameworks is that they provide theories of how students perceive outcomes and account for the differential ways that chair testing might lead to further action in task motivation and achievement motivation. In particular, the two main topics that will be addressed are achievement motivation and student perception of control. Schmidt (2005) and Schatt (2011) both confirm through their research that these topics are interdependent. Perception of control over the outcome of a task will affect their future motivation on achievement. If they perceive the task as something that they have control over, then they are more likely to engage in like-tasks again and increase achievement (Weiner, 1974). The degree of dependency will be determined through the use of a similar questionnaire that Asmus (1986) used in his study determining the attributional factors of being good at music. Based upon the results of this survey, I will analyze the students' perception of control over the outcome of their test and based on the attributional factors determine the effects on their motivation. First, I will explain and problematize chair testing and seating as a traditional practice in string ensemble classes.

**Traditional Chair Testing**

There are a variety of ways to seat musicians in an ensemble, and a popular method of determining seating is through a test or audition (Hamann & Gillespie, 2009; Miller, 1994; Saldana, 2008). Most ensemble directors seat musicians based on the results of competitive chair testing. In some situations, students are seated in order of achievement on their performance exam from best to worst, front to back, respectively. This ranking system is based on a performance audition usually for the conductor or teacher and possibly other judges. According to Hamann and Gillespie (2009), a favored seating arrangement is to place weaker musicians next to stronger ones. This creates a leadership role for the stronger musician so that the weaker musician has someone to model after. There are, however, a variety of ways to seat students in an ensemble as described by musicians and music educators.

Yi (2019), an orchestral director, has developed many different seating arrangements that draw upon research on social justice inside and outside of music education. Through her own personal experiences and her research, she decided to rethink the hierarchical seating arrangements that are commonly used. Her alternative seating practices promote shared leadership, community awareness within the ensemble, advocacy for all, creation of diverse friendships and increase confidence and compassionate learning. The arrangements are rotational, scrambled, circle and randomized. She describes randomized exactly as it sounds. The students are randomly selected to sit anywhere in their section. Scrambled is where they can sit anywhere in the ensemble. This is good for sitting with instruments or personnel with different parts so they can hear more musical happenings—that they wouldn't normally hear. Circle seating is where the ensemble sits in a circle in one of two primary configurations. They can face in for an all-around sound inclusion with the conductor in the middle. It creates good contact

with the conductor, too. They can also face the outside of the circle for more independent work as the director walks around the outside. Rotational seating takes an individual or a pair and rotates them in the section usually moving up each time until the first stand is reached and then they rotate to the back again. This diminishes the hierarchical traditional seating because they change each rehearsal. Another professional in the field nearly 50 years earlier, Wrochem (1971), had a similar view on rotational seating. He states that in previous rank-based seating, self-confidence and worth as a musician was defined by the chair in which they sat. He suggests that auditions should be pass or fail. Can the auditionee perform the level of musical difficulty asked? If the answer is yes, then they are simply in the ensemble. This way it does not sit individuals based on a single audition. He suggests rotation by pairs and to heighten the chairs with risers as they go further back so that each musician has a better view of the director and ensemble mates, allowing them to make quicker adjustments in performance and rehearsal rather than relying on acoustics. There are other musicians and educators who believe that traditional rank-based seating places constraints on students.

In addition to the chair placement, there may be students with low socioeconomic status (SES) who, compared with high-SES students, have immense barriers for higher chairs and leading roles in orchestra classes (Bates, 2012). This creates inequitable and forced-upon competitive situations that are burdening households (Ammerman, 2016). Students may develop a greater need in these situations for private lessons in order to remain competitive with other musicians, which in turn cause further financial hardship (Woody, 2004). Scruggs (2009) believes that constructivist practices increase student engagement in the classroom by having students bring their own knowledge to the classroom. A typical teacher-centered classroom rarely involves students as leaders or decision makers. Constructivist educational practices could

promote student understanding and engagement and provide a student-centered classroom. The teacher should encourage and help students find their own strengths, allowing them to take ownership. She suggests a rotational seating system and section swapping for increased engagement because this gets students in the back who typically have deteriorating attention to the front where they are more aware and engaged. Similar to Yi's recommendation, she also suggests a circular pattern because it heightens their level of watching and listening. To keep the chair testing student-centered, she has student leaders help identify excerpts for testing and coach other students in preparation. She found that most students responded very well to their peers. While the literature on chair testing is abundant, minimal research on chair testing within string education exists.

In 2016 I conducted a small-scale survey on chair testing of fourteen band and orchestra teachers on procedures and management and discovered that some teachers use factors other than the performance. Some participating teachers used seniority to seat students; others placed the most seasoned musicians closer to the front so that the underclassman or newer musicians can learn from and follow them. Some judges were found to base the chair given solely from the performance given at the time of chair testing, or their day-to-day performance in class. In some cases, teachers tried alternate seating to help students not doing as well as others by placing them with a student or musician who was doing better. In these cases, the teachers said that they placed weaker musicians closer to the front rather than the standard rank of best to worst—front to back, similar to Hamann and Gillespie's (2009) suggestions. Regardless of how the teachers test or what they consider when placing the students, all participants of this study used competitive auditions as part or all of their strategy for determining seating order. It is unclear how chair testing is affecting students. Identifying the factors for success and failure that

students perceive in chair testing would provide perspective on their perception of control over the outcome of chair tests and thus their motivation for the achievement task, which is the chair test. West (2013), Maehr et al (2002) and Mayer (2007) stated that contributions such as outcomes of previous tasks completed will have *great* influence over motivation to engage in that task again to achieve the desired outcome. Competition is prevalent in chair testing because of the internal and external perceptions students have. It is natural for one to compare oneself to others, especially when there are stakes at risk like a chair ranking in the orchestra.

**Competition and Motivation**

Researchers and school administrators have observed that the use of competition is at odds with developmental growth and intellectual development in adolescents. From an emotional and behavioristic point-of-view of competition, Principal Jerry Goldsberry of Plainfield Community Middle School, in Plainfield Indiana, spoke out about how competition greatly affects adolescents. In his school, he promotes teamwork, cooperation and connecting with the group because "these are eleven-, twelve-, and thirteen-year-olds undergoing massive physical and emotional changes, creating anxiety and stress" (Goldsberry as cited in Miller, 1994, p. 30). Love (1971) affirms that competition is a stressful component that is prevalent in the music ensemble. Why create an environment any less than what Principal Jerry Goldsberry has with the already known factors of students surrounded by other stressors and anxieties? While these sources are dated, they demonstrate the deep history surrounding debates around competition in music education. Similar perspectives about the importance and limitations of competition remain robust debates in the field (Ammerman, 2016; Yi, 2019).

Competition has been widely viewed as a means to motivate students by using a chair test to place them in a tangible pecking order (Miller, 1994; Saldana, 2008). Miller (1994) believes that "…we in music education seem to be clinging to out-of-date beliefs in the mythical powers of competing to enhance performance" (p, 31). Saldana (2008) concurs and points out how deeply embedded this assumption is in music education practice, "[f]irst chair doesn't give me 'meaning'. First chair gives me value" (Saldana, 2008, p. 184). The essence of his argument is that how you gain meaning in music or your artistry is not through a chair. All the chair provides is relative value to other students' achievement. This value could be less or more than a student's peers, less or more than a parent's expectations or less or more than the student's own expectations. Miller (1994) states that "[l]ife for many of us in America has now evolved into a series of challenges to compete… we fail to understand how it decays the very essence of art and creativity" (p. 29). Regardless of whether the view is through intrinsic/extrinsic motivation and mastery/performance goals or competition, what comes after is equally important to a student's motivation. Miller (1994) describes a multidimensional subject of chair seating in an ensemble. He argues that moving students around to different locations within the ensemble might give some of the less-gifted players a greater sense of belonging and that they might rise to the occasion consequentially. However, he also counters this argument with the alternative perspective that having chair auditions is the only way to determine the best players in the ensemble. In other words, not only does the ultimate outcome of a chair test—how a teacher places the students in the ensemble—positively or negatively affect their motivation, but the chair test alone is the only way to even determine how the students are doing. This reflects a predominant view still held by many music teachers in the profession who assume that motivation is primarily extrinsic. In reviewing how competition can affect motivation, the next

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few paragraphs will conceptualize motivation and how it relates to the varied ways that students may perceive chair testing.

Motivation is a key part of this study. Chair testing has a variety of effects on student musicians (Clark, 2012; Love, 1971), and motivation is one of these facets under examination. Motivation deals with an assortment of variables. Drawing on motivational theories helps to identify and describe concepts and conceptual tools that can be used to study motivation. Motivation is framed in this section in multiple forms to gain insight into what possible effects chair testing might have on it. The first is through achievement theories.

For years, theorists and educators have concluded that encouraging students to become more motivated through mastery learning goals rather than performance learning goals would be more successful in learning (Maehr et al., 2002; Mayer, 2007; West, 2013). Goal Theory states that people naturally select goals based on either mastery learning achievements or performance learning achievements (Hruska, 2011). Students who have mastery learning goals are motivated by the process of learning and achieving challenges that are presented to them. These mastery learners are more likely to engage in learning and higher thinking skills when learning new material (Sandene, 1997). Performance-oriented students are more concerned with how others perceive their competence rather than mastering the task (West, 2013). These varied ways of goal setting are relevant for learning and interpreting competitive activities.

**Achievement Goals**. Wiseman and Hunt (2008) provide insight on two different learning goals from their study, which are mastery learning goals and performance goals. Mastery learning goals emphasize the challenge of learning and understanding with a goal of continuous improvement despite how many mistakes might be made. Performance goals stress the importance of high ability and accomplishment without failure during an achievement task.

Performance-oriented learning environments place a large emphasis on grades and competitive situations and are more focused on the final product rather than the task of learning (Ames, 1992). McPherson, Austin and Renwick (2007) states that performance goals motivate students to out-perform others and further the need to demonstrate competence. Research studies in psychology support this construct by suggesting that humans are naturally driven to achieve goals to validate or demonstrate abilities that they are attempting to develop or acquire (Molden & Dweck, 2000). In a study on measuring the sources of self-efficacy among secondary school music students, Zelenak (2010) found that mastery experience had the greatest degree of influence on self-efficacy and goal-setting. McPherson et al (2007) and Sandene (1997) state that goals are cognitive representations of the approaches and intentions that people have in different achievement situations and therefore are related to motivation in learning contexts. The combination of varying degrees of self- efficacy, mental states, and external input and learning goal orientations will be different for each student. Notably, the significance of the term *self* is central to many aspects of motivation.

**Self-Efficacy.** Self-efficacy theory is defined as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1995, p.2) and has been interpreted in different ways by music education researchers. Ormrod (2008) defines self-efficacy as what people believe about their ability to succeed at different tasks. Miksza (2011) describes self-efficacy as a theoretical precursor to indicators of intrinsic motivation such as goal setting and persistence on music learning tasks. According to Ryan and Deci (2000) and Woody and McPherson (2010), for students to participate in higher musical levels, they must feel that they (a) have power over choices, (b) are competent in skill and (c) feel like they belong and are connected with others. Hewitt (2015) believed that in order for a

student to be a successful musician they must be properly motivated to practice and be able to set goals and select strategies to develop their abilities in music. They also must be able to track progress and make judgements based on their own successes and failures. So, students who have a successful self-efficacy when it comes to learning are more likely to engage in self-regulatory actions. Schunk and Pajares (2004) agreed that self-efficacy influences a student's choices because they tend to select tasks and activities in which they feel confident and competent. Also, teachers should be teaching self-regulatory strategies and instilling positive beliefs in their students because it helps them gain a higher self-efficacy and achievement level (Schunk & Gunn, 1985). If a student can have a positive self-evaluation on their progress, practice and performance, then they can feel more efficacious about their learning. This has been shown to motivate them to persist because they feel they can get better and better at what they are doing (Schunk, 1991).

In terms of chair testing, if a student can evaluate their own performance, then they can also develop like-feelings towards motivation and future achievement based on that evaluation. Clements (2002) views students' self-concept as a stronger predictor than teachers' assessment of ability in terms of music participation. The same idea can be translated to task completion, persistence and motivation. Pajares (1996) stated that teachers should pay just as much attention to students' actual capabilities as to the students' own predictions of those capabilities. Students' self-efficacy could predict their motivation, persistence and achievement. Research on Attribution Theory shows to what students attribute the outcomes of certain tasks. Attribution Theory research and concepts will be discussed next.

**Attribution Theory**

Attribution Theory is the perception of one's performance associated with ability versus effort-related causes and will have substantially different consequences for one's subsequent achievement behavior (Diener & Dweck, 1978; Weiner, 1979). How a student perceives the cause(s) of success and failure will greatly influence future motivation to engage in the task or like-tasks again. Attribution Theory provides a set of four terms used to classify attributional factors as stable, unstable, internal and external and explains how they are interpreted by individuals (Weiner, 1974). If a student views an outcome as something that they can control by their own actions such as practicing for a chair test, then it is categorized as an internal factor. Internal factors are what students do have control over. If the student views the outcome as something they cannot control themselves like test difficulty, then this is an external factor. External factors are those that students do not have control over. Talent is a stable factor because it is generally agreed upon as something that does not change. Effort is identified as unstable and is something that students exert in order to achieve goals and better skills. Since effort can change and has variation within the individual, then it is unstable. Unstable factors are not constant. These four terms make up the two-dimensional conceptualization model for Attribution Theory. These categories as prescribed by Weiner (1974) provide the conceptual foundation for this study.

According to Urdan and Turner (2007), Attribution Theory describes the relationship between students' perception of control and achievement. If students perceive control over the outcome of a situation, the assumption is that they become more motivated and reach higher levels of achievement. For example, Maehr et al (2002) found that when students believed that achievement resulted from external, stable factors such as luck or difficulty of a task that they

were less motivated to work hard towards a goal. However, if they viewed their achievement as the result of controllable and unstable factors like effort and practice, then they were more likely to be engaged and exert effort. The fundamental premise of Attribution Theory is that student perception of control is the most significant factor in motivation on achievement tasks. In the next section, I will describe a study that applied Attribution Theory to instrumental music instruction and student practice.

**Student Control.** Schatt (2011) explored high school band students' perspectives of instrumental music practice through the framework of Attribution Theory. He addressed how control over the outcome can be a motivational factor by using a Practice Attribution Survey (PAS). This survey had 21 motivational and attributional items related to success and failure that were given on a scale from strongly agree (1) to strongly disagree (5). The participants were band students grades ninth through twelfth, all with varying degrees of educational attainment who had been playing their band instrument for at least one year. Figure 1 (p. 20) contains examples of questions from the PAS (See all in Appendix A).

The results showed that the students acknowledged that practicing would make them better. Students understood why they should be practicing and that the goal was to get better at their instrument. Schatt was able to gauge the students' views of instrumental practice and perceived effectiveness in generating and sustaining musical growth. The highest values in attributional factors were internal-unstable in the effort category. Many of them felt that they had some control over the outcome of their practicing since they provided the effort. Several theorists have developed goal theories that are relevant for understanding some of these motivational characteristics (Ames, 1984; Schmidt, 2005; Wiseman & Hunt, 2008). Theorists have found that when students are familiar with particular strategies that they can use that they are likely to

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develop more self-attributions. Theorists have also developed goal theories that are relevant for understanding some of these motivational characteristics. These will be further discussed in the next section.

**Achievement Goal Theories**

There are a number of prominent theories regarding student achievement and motivation. Goal Theory is a prominent theory that provides an explanation of how learners will set goals during certain given tasks (Ames, 1984). Ames (1984) found that ability attributions were predictive of children's positive and negative affective reactions and found that more children who tested individually displayed mastery orientation than students who tested in a competitive situation amongst other children. Mastery orientation refers to the mindset of an individual who wants to acquire new knowledge or master skills.  Performance orientation is when an individual wants to complete a task well so that they can look good for another individual. According to Dharmadasa, Gorrell and Akey (1997), many studies have shown that mastery learning goals and performance goals are independent of one another (Meece & Holt, 1993; Miller, Behrens, Greene, & Newman, 1993; Roedel, Schraw, & Plake, 1994; Schraw, Horn, Thorndike-Christ, & Bruning, 1995). Most educators have agreed that mastery goal orientations are far better than performance goal orientations (Ames, 1992; Maehr et al., 2002; Mayer, 2007). Therefore, it is important to understand more about how motivation directly affects achievement in music classes.

In research on Achievement Goal Theories, Schmidt (2005) addresses many issues regarding music students and achievement motivation orientations. Among these were the

reexamination of academic achievement motivation orientations—following similar research by Marsh, Craven, Hinkley and Debus (2003)—within the context of instrumental music and the examination of relations among achievement motivation orientations and self-concept in instrumental music. The population of his study was approximately 300 band students in grades seventh through twelfth in four school districts. From the surveys administered, these data collected students' motivation orientations, performance achievements and efforts as rated by their teachers. The study results revealed that students reported that their own success was best defined by mastery and cooperative orientations and that they placed less emphasis on competitive and ego orientations. Cooperative, competitive and ego orientations all refer to a categorization of the individual's internal goal orientation. The students also listed success as reaching a personal goal of their own and gaining a sense of improvement. Since these are effort attributes, they are student-controlled. This information suggests that students may respond best to intrinsic aspects of music rather than the competitive aspects (Schmidt, 2005). Schmidt recommends conducting further research that examines attributions in other music education contexts.  The aim of my study is to explore attributions in competitive chair testing in string classes.

**Attributions and Achievement Goal Theories Applied to Music**. Schmidt (2005) confirms the findings of the Ames study through his and others' research. Austin and Vispoel (1998) and Vispoel and Austin (1995) found that ability attributions were linked with cognitive achievement. Chandler et al (1988) found that effort attributions were positively correlated with the instrumental students. Much like these other students, the aim of this study is to explore attributions but in competitive chair testing in string classes. Information gathered on students' perceptions of attributions will help to determine what sense of control they believe they and

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most students have over the outcome of the chair test in their classroom. Motivation orientations should be examined through students' responses rather than compared with the attributions in order to explore the effect of chair testing on students' motivation and achievement.

Weiner (1974) identified four primary causal categories of attributions of success and failure as ability, task difficulty, luck and effort**.** Stable causes, or the causes of consistent events, were found to be ability and task difficulty. Unstable causes, or the causes of inconsistent events, were luck and effort. Ability and effort were considered to be causes originating within the individual while luck and task difficulty were found to be perceived as causes outside the individual. This is how the two-dimensional conceptualization was created for Attribution Theory by Weiner (1974). Most research in Attribution Theory uses this model.

Asmus (1986) examined perceptions of success and failure in music classes through Weiner's attributional framework. This is relevant to the current study because I was also looking for the attributions in an instrumental ensemble. I adopted a narrower perspective by focusing on seating assignments according to the results of chair testing within orchestra ensembles. His study consisted of 589 music students in grades four through twelve in instrumental, vocal and general music courses. There were eight participating schools in this district with varying socioeconomic backgrounds. He asked them two open-ended questions: "State five reasons why some students do well in music and five reasons why some students do not do well in music" (Asmus, 1986). Asmus categorized the responses using Weiner's four dimensions and identified that the percentages of attributions for success and failure in music were internal-unstable (38.65%), internal-stable (42.92%), external-unstable (9.85%) and external-stable (8.59%). Around 80% of students believed that the reason for success and/or failure were internal; with the majority being related to ability. Asmus analyzed data by sex and

grade level. Females made more internal-stable attributions than males. Also, as the grade level increased the number of internal-stable attributions increased. Students in younger grades had more internal-unstable attributions like effort, and older grades shifted to internal-stable attributions like ability.

His findings provide insight into the perceptions that students have on control over the outcome of a task. Since ability is an internal-stable attribution of success and/or failure, students can experience helplessness because they might feel like they have no control. They also do not promote as much achievement persistence because they rely on innate abilities of the student rather than effort (Asmus, 1986). The second largest portion of answers were categorized as internal-unstable. Since this is something students can control, they could perhaps be more motivated to work at towards success and in return achieve higher. His study reveals that in theory the majority of students, according to their attributions, are not going to be as motivated as the students who answered with responses in the internal-unstable category. He promotes the encouragement of internal-unstable attributions, but he does not connect the attributions with other motivational concepts. What it does reveal is that task persistence depends on, to a large degree, student perception of control of the outcome. Much like Asmus's study, I extract the attributions students have for the success and failure on a chair test, which were analyzed for responses in the four causal categories. Then, I report on the motivational scale indicated by the students in comparison with their attributes. Details are reported in the results chapter.

**Summary**

The purpose of this study was to investigate how string students explain success and failure on a chair test. A secondary purpose of the study was to analyze how these attributes

compare with student motivation. While the research is extensive on Attribution Theory, Goal Theory, competition, self-efficacy and motivation, there is minimal research of the effects on chair testing regarding these theories and terms (Ames, 1984; Asmus, 1986; Hewitt, 2015; Schmidt, 2005). Therefore, I examined how chair testing affected student musicians by examining their attributions for success and failure. The findings of this study provide insight into the effect of chair testing on how students describe achievement, attributions and motivation for chair tests.

Research conducted on the effects on student motivation and achievement from chair testing is minimal. Little is known about the true motivational risks for students taken through chair testing. I do know that a variety of seating arrangements exist but also that the majority of these arrangements are still calculated or formed through the use of a chair test. This is the issue at hand. It is crucial to determine how students are perceiving the goals of chair testing and their attributes for success or failure on the chair test. In doing so, it will allow educators to examine the ways in which students are internalizing motivation.

Chair testing promotes a variety of internal feelings from the learners subjected to it, but one major feeling is of competitiveness. Competition in chair testing does not encourage healthy motivational habits, learning goals or the best learning situations. Competition has been widely used as a means to motivate by placing students in a tangible pecking order (Miller, 1994; Saldana, 2008). While the reality that individuals experience in chair testing varies, the chair as the goal is external motivation whereas learning the skills is an internal motivational factor. Thus, chair testing is creating an external motivation mindset for the students instead of focusing on the internal.

The research and literature are extensive in motivational theories and concepts. To extend on previous research on motivation in music classes, this study will utilize a response form to collect data on how students view chair testing through a goal orientation framework. Mastery learners are more likely to engage in learning and higher thinking skills when learning new material (Sandene, 1997). Performance learners focus on grades, competitive situations and are more focused on the final product rather than the task of learning (Ames, 1992). It is important to know what orientations students have because it will affect their motivation to do future tasks. Educators generally agree that students should be motivated to learn for the sake of learning.

Attribution Theory is a long-standing theory used in multiple studies on music participants. What has been found, in general, is that internal attributes were recognized as the highest. This means that the participants viewed the outcome of the task, as prescribed in the respective studies, as something within control of the individual (Ames, 1986; Schatt, 2011; Weiner, 1974). In this study, I examined the attributes written by the students to view their perceptions on chair testing to examine student motivation and its relevance in music learning.

1) I practice my instrument because I do not want my teacher to think I am a poor student.
2) I practice my instrument because I enjoy a challenge.
3) I practice my instrument because I want to receive high grades from my teacher
7) The effectiveness of my practice is due to my own natural music ability.
9) Whether or not I succeed in music has little to do with my practicing.
16) If I want to improve on my instrument, I could practice my instrument more.
18) It is necessary for me to practice my instrument to achieve musical success.

Figure 1. Sample questions taken from Schatt's (2011) Practice Questionnaire.

# METHODOLOGY

The purpose of this study was to identify how string students explain success and failure on a chair test. A secondary purpose of the study was to analyze how the attributes correlated with student motivation. I investigated both purposes with a survey that I designed and administered to middle and high school string classes. In this Methodology chapter, I desribe the sample population description, the instrumentation of the study itself, procedures that were taken for the study and the data analysis.

## Sample

The participants were public school orchestra students currently enrolled in grades sixth through twelfth and their teachers who have administered chair tests. Nine different public schools in southwest Missouri that use chair testing located in a single school district participated in this study. The district curriculum begins string classes in fifth grade and then daily instruction begins in sixth grade. One criterion for participation was that the students must have already had at least one chair test either this school year or in previous school years with the same teacher. The students were surveyed on chair testing attributes and their perception on motivation and goals of the chair test. The teachers were also surveyed on the goals of the chair test. This information was used to examine the relationship between student control of the achievement task (chair testing) and their motivation and future achievement. The teacher survey was used to see if the chair test goals match from teacher to student participating in the same school. This study (IRB-FY2019-263) was approved by the Institutional Review Board on 9-30-2019 (Appendix B).

**Instrumentation**

      **Student Response Form**. A three-part questionnaire was used to collect data that draws on attribution and goal achievement theory.  The first portion of the questionnaire uses an open-ended format developed by Asmus (1986). He asked student participants to state five reasons why they think some students do well in chair testing and five reasons why some students do not do well in chair testing. I replaced the word "music" with "chair testing". This was changed to narrow the previous research to chair testing specifically. Minimal research exists on the effects of chair testing on student motivation and achievement.

      I developed a second set of questions to gauge their perception of motivation from chair testing. These were designed to gauge how motivated they think most students are to do well on a chair test. These data provided a comparison with the other attributions listed by the students.

1) On a scale from one to ten with ten being the highest, how motivated do you think some students are to do well on a chair test?
2) What is the primary goal(s) of the chair testing (high chair placement, good grade, growth of skill set, etc.)?

The demographic information also asked of the participants were grade level, the current instrument they play in orchestra, and how many years they have played that instrument. The Student Response Form is available in Appendix C, and the Teacher Response Form is in Appendix D.

      The students also provided an accumulated average chair test score (ACTS) for achievement on their own chair tests either from that same school year or from previous years' tests. They rated themselves between a one and ten with ten being the highest score possible.

**Teacher Response Form**. Teachers were also given a response form to fill out. They were asked if they have had at least one chair placement examination with their current students to ensure they were eligible for the study. Next, they were asked what grade levels they teach. Third, they were to indicate what the primary goal of the chair test is in their class and if they tell the students this information. Last, they explained what the chair placement represents (e.g. higher chair is equal to a better test). All artifacts from and for each student and teacher were collected and organized for analysis.

**Procedure**

I solicited participation from all string teachers in the district after I secured permission. Once they agreed to participate, I sent an email to the building principals at each site gaining their approval. This process ranged in length from one to four weeks depending on the site. Most responded within two weeks—teacher and principal. After gaining permission from each site, I asked the teacher how many copies of the consent forms (Appendix E) were needed and provided copies accordingly. The consent forms were sent out through school mail. Receiving consent from each site varied greatly in length of time. I kept a chart of my progress with each school.

I contacted teachers throughout the process in order to offer assistance and to facilitate data collection. I collected the consent forms in person. I drove to each school individually when time allowed within the week they were completed. Upon arrival, I gathered the prepared copies of blank surveys for the students and teachers, and I made a list of the students based on the consent forms that determined eligibility to take the survey. I then gave the list and blank surveys to the teacher to be administered as soon as they could. Teachers could give the questionnaire

anytime outside of that two-week perimeter of the chair test, which could be either before or after. Teachers were also prompted to continue with teaching as they normally would without making changes. The questionnaire was anticipated to take between five and fifteen minutes, but it was recommended that the teacher set aside a thirty-minute window for instructions and collection. The Teacher Script and Procedures document is Appendix F. Teachers were instructed to give the Student Response Form (Appendix C) no less than two weeks before or after a chair test in their class and to complete the Teacher Response Form (Appendix D).

Most took the survey within the same week that it was distributed. All students and teachers remained anonymous throughout the research project. All answers from both teacher and student were immediately placed in the provided envelopes and sealed. This was to keep all answers confidential until I could pick them up for locked storage. I instructed the teachers to destroy the list of eligible students once they were done taking the survey. A few teachers sent the list back to me, and I destroyed it. Once the teachers and students were all done with the surveys, I drove back out to the schools and collected them. This entire process for all nine schools to be completed took three months.

**Data Analysis**

     **Set-up for The Analysis.** I organized the data according to the variables off of the survey from both student and teacher. I separated the information by assigning a student tab and teacher tab. Schools were only identified by code to maintain anonymity. The school codes I used were HSA, HSB, MSA, MSB, MSC, MSD, MSE, MSF, MSG. The "HS" refers to high school and "MS" refers to middle schools. They were chosen at random and assigned a letter. Schools are referred to by these codes in the data results.

Once all surveys had been documented electronically, the Excel sheet was reviewed by another researcher. We looked at the responses separately and then compared the results collaboratively. This created an interpretive zone, which allowed us to negotiate interpretations and find multiple meanings in the data (Conway, 2014). In the data analysis, I categorized the attributions from the last two student columns, "reasons why some students do well," "reasons why some students do not do well" using the attributions model from Weiner (1974).

**The Analysis.** The relationship among the ACTS, the attributional factors, the motivational scale and the goal(s) for each student were analyzed and examined for trends among each school. I used *a priori*, or predetermined categories based on my initial research question that involved the attributional categories (Conway, 2014). First, I used the two-dimensional attribution model (Asmus, 1986; Weiner, 1974) to begin categorization of the responses in to the attributional factor categories: internal-stable, internal-unstable, external-stable, external-unstable. I used the wording as prescribed by Weiner (1974) to determine was constitutes as internal, external, stable and unstable. I went through one column of answers at a time: "why do some do well," and "why do some not do well." I looked for key words and phrases within those columns for approximately twenty rows of responses. I was able to then go through the rest of the rows and find similar phrases or words and categorize them in to the appropriate category. I found that multiple phrases and responses fit in to each category. Second, I searched for specific language in the responses and used that to code what was left. Using the research literature as a guide, I found that the majority of these other responses could be categorized in terms of Goal Theory. I labeled these codes as mastery learner goals and performance goals.

After categorizing the attributional factors, I determined the percentage of their answers indicated that they had control over the success or failure of the chair test. These categorizations of the responses were calculated and linked to Goal Theory. Data from each motivational scale step were used to examine their motivation to do well on a chair test.  Data from the teacher survey were also used to report on the achievement goal of the chair tests administered in a particular classroom and if those goals were deliberately made aware to students. These data will be shown and analyzed in the Results chapter.

# RESULTS

In this chapter I show and explain the results and address the research questions in detail:

1.) To what do students attribute the success or failure of a chair test?
2.) What do students view as the learning goal during chair testing?
3.) What are the perceived effects of chair testing on a student's motivation?
4.) Does a student's perceived perception of control of the outcome increase the change of motivation from the student?

The sections of this chapter include the (a) description of the sample, (b) attributions and other responses from the students, learning goals from the students and teachers, (c) perceived effects of chair testing on student motivation and (d) the comparison of perception of control and motivation. At the end of the results chapter is a list of the tables and figures described here.

## Identification and Description of Sample

The survey was offered to all schools offering strings within one southwest Missouri school district. Those who participated were two high schools and seven middle schools. The survey was offered to any student in a string class where the teacher used chair testing. Any grade, sixth through twelfth, was offered the chance to participate. These grades were selected since chair testing is most commonly found within these grade levels within the participating district. The teachers within each participating school chose the appropriate classes based on guidelines I specified (Appendix F). Not all teachers chose to include every class they taught that was eligible.

See Table 1 (p. 36) for the inclusion of grade levels at each site. The sites are coded to protect privacy of participants. HS means high school and MS means middle school. The third letter is just a given letter for each school chosen at random. The student survey also asked each

participant to indicate their instrument. Table 2 (p. 37) is a breakdown of instrument sections accounted for in the surveys by school. Table 3 (p. 38) shows the number of potential participants at each school and the actual number of participants at each school. The response rate was unsurprisingly low, as it was left to the participating teachers to grant participation within their classes. The teachers indicated that within the eligible classes to which they gave informed consent forms, many students did not return an informed consent form and therefore were not eligible to participate. This is the primary reason for the response rate shown. Other reasons are unknown. After reviewing the background data from the survey, I then began to type out all responses given on the survey forms from both teacher and student into an Excel spreadsheet. Then, I analyzed the responses from the students about why they think some students do well and why some do not do well on a chair test.

**Attributions and Other Responses from Students**

The student responses varied greatly in length and in content. There were many repeated responses (e.g. "practice," or "nerves," or "talent"). However, there were also many responses that did not have a high frequency present (e.g. "drugs," or "wants to look good," or "think it's fun"). I started with a deductive approach to first categorize the attributional responses. Once I had discovered that there were many responses that could not be categorized by attributions, I decided to take an inductive approach to categorizing the responses. Attributional categorization was the primary goal for analyzing the responses, but the responses revealed that different categories were necessary to accommodate the large number of them that could not be categorized using the attribution, two-dimensional model (Weiner,1974). Figure 2 (p. 44) shows the responses from the student survey.

I began with categorizing the true attributional categories: internal-stable, internal-unstable, external-stable and external-unstable. Once I had determined what could be explained in terms of attributions and what could not, I began to search through the undetermined responses for other patterns. I came across several that could be explained by Goal Theories. I went back through and categorized the new codings. As expected, there were some responses that were unrelated to or did not answer the question given in the survey. These are also listed in Figure 2.

There remained a large number of undetermined responses. Many of these could be determined as stable or unstable, but internal versus external could not be identified. An example response for this situation is, "played for a long time." I was not able to infer if the student meant this from an internal or external perspective, because I was not able to determine if they were referring to themselves or someone else. Similarly, I could not determine stable versus unstable, but I was able to identify internal status for "want to go to class." I understood that they were referring to something internal since they "want" to do it. However, I could not determine if the student viewed this as something that is unstable and that they could change or as stable and will forever want to go to orchestra class.

One more subcategory in the undetermined category that is somewhat explained through the attributional model is one that I could not determine as being internal or external, or stable or unstable. An example from the response collection is "gets nervous." I could not determine if they are feeling like this is something in their control physically and therefore is internal or uncontrollable because the people around them make them nervous during tests and therefore is external. I also cannot say if this is stable since at that moment they could believe that nerves will always be a part of performance or if they feel like this could eventually diminish with

practice and repetition. These are inferences that could not be made validly with the given responses provided by the students on the survey. A few other key words common in frequency in the undetermined category of the response figure included items related to skill, pressure, confidence, enjoyment, stress, comfortability, attention (and lack thereof), class behavior and focus or distractions.

I found the response rate for each of the attributional categories. The four attributional categories ranked in order of highest to lowest frequency were internal-unstable (effort) at 656 and 79% of attributional responses only, external-unstable (luck) at 113 and 14% of attributional responses only, external-stable (test difficulty) at 36 and 4% of attributional responses only and internal-stable (ability) at 26 and 3% of attributional responses only. These results yielded different types of responses from the Asmus (1986) survey on the question, "[s]tate five reasons why some students do well in music and five reasons why some students do not do well in music" (Asmus, 1986). Figure 2 provides a summary of attributional categories related to Goal Theory. Only 21 responses (out of the two goal theory categories) showed students with a mastery learning goal and 125 responses showed students with a performance learning goal. The next section will describe what the students revealed as the learning goal during chair testing and what each teacher established as the learning goal for chair testing.

**Student and Teacher Learning Goals During Chair Testing**

I began the analysis of these responses by typing out all of them from the students and teachers into my Excel sheet. The responses from the students were answers about what they thought the goal of the chair test was. The responses from the teachers were answers about what

the goal actually was and if they communicated that with the students. The teachers also gave a brief explanation about what chair placement means in their classroom.

Table 4 (p. 39) shows the responses I found amongst all of the surveys. I paraphrased them for better clarity on the table. However, the integrity of the responses remains intact. I typed out the responses from the students when asked, "What is the primary goal(s) of the chair testing in your class?" Once I had them all in the Excel sheet, I went through and found key words and tracked the trends within the responses. I counted how many times these phrases appeared. Some phrases did not have the same wording, but the meaning behind the description was very similar, so I combined them into the same category when counting them during the analysis. Once I had all of the phrase categories in the table, I went through the responses and analyzed the responses further. It is also important to note that there might be a school effect affecting the results. There were some differences from school to school in age and grade level, but multiple other factors exist that were not accounted for such as socio-economics, certain psychological effects and others.

In Table 4, I show that the top responses in frequency from the students were high chair, good grades and growth of skill. I inferred that most of these students view these three items as the learning goal during chair testing. Table 5 (p. 40) shows the learning goals that teacher participants reported. I have also paraphrased responses for better clarity on the table. However, the integrity of the responses was not lost. I typed in all of the teachers' responses into the teacher tab of the Excel sheet. Then, I read through them carefully to ensure that the responses given in Table 5 matched what the teachers intended to say. I took out unnecessary language from the actual teacher response for better clarity and to take out wording that was not pertinent to the question.

Six of the nine teachers stated that either seating or a higher chair was a goal. This suggests that chair placement is being used as a means to promote motivation through competition. Six of the nine teachers mentioned grades in their response. Five of the nine teachers stated that growth of skills was a goal. The majority of the student responses align with the majority of the teacher responses seen here. One finding from this set of data is that if the teacher did not recall or unintentionally stated or implied that a different item was the goal, then I could not differentiate between the implicit or explicit nature of the goals identified by students. Also, most of the students provided multiple goals showing in each category.

The teachers also stated what chair placement means in their classroom. Once again, the responses are paraphrased for clarity, but the integrity remains intact. This is located in Table 6 (p. 41). I read carefully through their answers, paraphrased without diminishing or changing meaning and developed a chart. All teacher responses showed that the test results are linked to how they arrange seating. This can only be true for their beliefs or teaching goals of the classroom since I do not have evidence of their actual chair placements. Many stated that the highest score gets the highest chair. In other words, they are using the test as a visual ranking system. There also seems to be a pattern that indicates that the higher chairs are held to a higher standard and those selected students have more responsibility to the rest of the group. Five out of the nine teachers have stated this. I found that their seating rank is based on achievement. The teachers from MSB and MSG mentioned the leadership position as a factor. It is interesting to note that they take further consideration at the top of the achievement list to determine who will make good leaders. This could mean that the chair placement isn't solely based on the achievement score of the chair test. Also, one teacher mentioned breaking a tie. MSB said they take leadership and practice time logged to determine who did better or perhaps get the higher

chair; and the reward is unspecified. The teacher from MSG did not specifically say that the chair is equal to or dependent on a score but rather put it in terms of skill, sound and posture to be in the front and to also include strong players throughout the rest of the ensemble seating. The teacher from MSE noted in their response that it was a goal to engage students in the process and get them to take ownership. This teacher did not indicate exactly what process was happening but getting students to take ownership could be a form of motivation. Next, I asked the students to rank the perceived motivation to do well on a chair test by others. In this section I will show the results of the frequency of student responses per number on the motivation scale.

**Perceived Effects of Chair Testing on Student Motivation**

This section of the survey was used to find out how students felt in terms of motivation to do well on a chair test. The question presented to them on the survey stated, "On a scale from 1 to 10, 10 being the highest, how motivated do you think some students are to do well on a chair test?" This was followed by a scale from 1 to 10 indicating 10 as the highest and to circle their chosen ranking. I moved on to analyzing the frequency of student responses per motivational scale number as seen in Figure 3 (p. 45). A frequency analysis of these results is provided in Figure 3. The category with the highest frequency of responses was the seven as the rating for motivation to do well on a chair test. The mean was 22.7, standard deviation was 20.9 and the variance was 438.4. The graph appears to have a bell curve. The ratings six, seven, eight and nine had the highest frequencies, indicating that most students believe that other students in general are motivated to do well on the chair tests. My final research question asked if a student's perception of control over the outcome of the test would increase the chance of

motivation from the student. In the next section I explain the results from the student responses and what it means in terms of the perception the students have for chair testing.

**Comparison of Perception of Control and Motivation**

In this section I will explain what defines 'student control over the outcome,' why certain responses were only included in the analysis and what this means in terms of motivation. The tables and figures associated with these data appears at the end of the chapter. In these data, I was specifically looking for the number of responses in the internal categories because these are what students perceive as within their control (Weiner, 1974). I include only the attributional categories in this section to focus on research question 4. Table 7 (p. 42) shows the four attributional categories, the motivational scale ratings and the relationship between the two. The frequency of responses per motivational scale rating were recorded. It is important to note that student responses had more than one reason given to the open-ended questions. These data are shown in Table 7 as well.

The internal-unstable attributional category shows the highest frequency of responses in each motivational scale rating. Internal-unstable is the effort category. Students are perceiving the attribute as something that they or others have control over since it is internal. The unstable part means that the attribute has variation within the individual and therefore can change. Table 8 (p. 43) shows the same data but transposed to percentages for each scale rating.

Table 8 provides these same data in percentages within motivational ratings. Across the entire scale, once again, I saw that the highest percentages belong to the internal unstable attributional category. The next overall highest attributional category was external-unstable. The

external means that students do not perceive the attribute as something they or others can control and the unstable shows that there is variation within the individual and is subject to change.

The distribution of attributions across reported motivational levels suggests that students of varied motivational levels hold similar attributions for success and failure. This may indicate that most students believe that the outcome of the test is something that can be controlled. However, it is unclear whether these results would be different if considered from a self-perspective or if framed in terms of specific skills. Effort is the largest portion of responses for attributions. These data reflect multiple attributions across student responses. The initial research question for this portion of the analysis was, "Does a student's perception of control over the outcome increase the chance of motivation from the student?" Based on these results, perception of control over the outcome was not a factor on motivational ratings. However, numerous factors that could have influenced motivation were not addressed in the questions posed in this study, and there are contextual factors that may have affected how participants perceived the questions that were asked. These other factors may affect a student's motivation in chair testing.

Included in Figure 4 (p. 46) are the frequency of scale ratings for the average chair test score (ACTS) as assigned by the students as a rating for their own average. These are not included in the analysis as a comparison with other data because a limitation was found in the wording difference from this question and the other questions. The wording "your own" was used for the average chair test score, but the majority of the other questions were in regards to their thoughts on "other students." In my view, the comparison at the individual level would not be valid since the students were asked about their perceptions on others in the majority of the other questions. In the next chapter, I summarize the results of this study and the implications for

music students and music teachers. I will also provide recommendations that can inform further research and classroom strategies.

Table 1. Grade levels represented at each site.

| School Site [1] | Grade level(s) represented in data | | | | | | |
|---|---|---|---|---|---|---|---|
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| HSA | | | | x | x | x | x |
| HSB | | | | x | x | x | x |
| MSA | x | x | x | | | | |
| MSB | x | x | x | | | | |
| MSC | | x | x | | | | |
| MSD | | x | x | | | | |
| MSE | | | x | | | | |
| MSF | | | x | | | | |
| MSG | x | | | | | | |

[1] The school site codes were used to protect the privacy of the schools. HS= high school and MS= middle school. The alphabetical letters were chosen for the randomly selected school.

Table 2. Instrumentation of participants at each site.

| School Site | violin | viola | cello | bass |
|---|---|---|---|---|
| | Instruments represented in data from student responses | | | |
| HSA | 30 | 12 | 15 | 3 |
| HSB | 23 | 16 | 5 | 3 |
| MSA | 5 | 2 | 0 | 0 |
| MSB | 28 | 9 | 12 | 1 |
| MSC | 23 | 14 | 0 | 0 |
| MSD | 9 | 3 | 1 | 0 |
| MSE | 9 | 5 | 4 | 2 |
| MSF | 4 | 2 | 0 | 0 |
| MSG | 11 | 1 | 2 | 0 |

Table 3. Response rate shown at each site and totaled with the percentage at the bottom of the table.

| School Site | Potential Participants | Actual Participants | Response Rate |
|---|---|---|---|
| HSA | 138 | 60 | 43% |
| HSB | 111 | 40 | 36% |
| MSA | 68 | 7 | 10% |
| MSB | 132 | 50 | 38% |
| MSC | 58 | 19 | 33% |
| MSD | 39 | 13 | 33% |
| MSE | 50 | 20 | 40% |
| MSF | 32 | 6 | 19% |
| MSG | 25 | 14 | 56% |
| Total | 653 | 229 | 35% |

Table 4. Frequency of student responses on the goal of chair testing per site.

| Found Responses (paraphrased) | Frequency of student responded per site | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | HSA | HSB | MSA | MSB | MSC | MSD | MSE | MSF | MSG |
| $n$ | 60 | 40 | 7 | 50 | 19 | 13 | 20 | 6 | 14 |
| High chair. | 42 | 33 | 5 | 30 | 8 | 7 | 13 | 4 | 1 |
| Good grades. | 31 | 20 | 2 | 7 | 7 | 6 | 9 | 2 | 3 |
| Growth of skill. | 28 | 15 | 3 | 12 | 5 | 8 | 14 | 2 | 7 |
| Motivates to practice. | 4 | 4 | 1 | 3 | 0 | 0 | 0 | 0 | 1 |
| Learn/know the material. | 3 | 2 | 3 | 2 | 0 | 1 | 4 | 0 | 2 |
| To compete/show off. | 7 | 7 | 2 | 10 | 2 | 2 | 1 | 0 | 0 |
| Teacher to decide seating. | 3 | 2 | 1 | 6 | 4 | 0 | 2 | 0 | 0 |
| Help with nervousness. | 1 | 1 | 1 | 2 | 0 | 1 | 0 | 0 | 0 |
| To get feedback. | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 1 |
| For teacher to help us. | 4 | 10 | 0 | 6 | 1 | 1 | 1 | 0 | 1 |
| Other. | 4 | 2 | 0 | 3 | 1 | 2 | 0 | 0 | 0 |

Table 5. Participant teacher goals and if they communicated this to the students.

| School site | Response (paraphrased) | Communicated |
|---|---|---|
| HSA | "Chair placement and grades for summative unit assessment." | Yes |
| HSB | "Chair placement based on grade received and student growth." | Yes |
| MSA | "High chair placement. Determine seating. High score=high chair." | Unsure |
| MSB | "Assessing if concepts were attained and create a seating chart." | Yes |
| MSC | "Grades, chair placement and to see where students are at in growth." | omitted |
| MSD | "Growth of skill. Motivate students to practice for high chair/good grade." | omitted |
| MSE | "Get them to practice." | omitted |
| MSF | "Growth, see what students know and their preparation for grade and chair." | Yes |
| MSG | "Growth of skills." | Yes |

Table 6. Teacher responses for what chair placement means in their classroom.

| School site | Response (paraphrased) |
| --- | --- |
| HSA | "Higher chair means you did better than others , on that particular test." |
| HSB | "Chair placement coincides with the grade on the test. Better test= higher chair." |
| MSA | "Primary goal is to determine seating—highest score gets highest chair." |
| MSB | "Based on points. Better leadership and more practice time logged break the tie." |
| MSC | "High chairs have extra responsibility of taking care of those behind them." |
| MSD | "For most of them it means they will be in a higher chair for the concert." |
| MSE | "For concert seating. Engage students in the process and take ownership." |
| MSF | "Just for chairs. A 'knowledge check' is a test for no chairs." |
| MSG | "Best placement for sound. Leaders with good posture and sound are in front and on edges. Other strong players mixed throughout." |

Table 7. Frequency of categorized attributional responses in correlation with the motivational scale ratings.

| Attributional Category | Motivation scale | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| $n$ | 0 | 16 | 9 | 47 | 56 | 183 | 229 | 141 | 97 | 35 |
| internal stable | 0 | 1 | 0 | 1 | 0 | 8 | 5 | 5 | 5 | 1 |
| internal unstable | 0 | 12 | 6 | 40 | 43 | 151 | 173 | 112 | 75 | 25 |
| external stable | 0 | 2 | 2 | 4 | 3 | 3 | 11 | 5 | 4 | 2 |
| external unstable | 0 | 1 | 1 | 2 | 10 | 21 | 40 | 19 | 13 | 7 |

Table 8. Frequency (in percentages) of categorized attributional responses in correlation with the motivational scale ratings.

| Attributional Category | Motivation scale | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| internal stable | 0 | 6% | 0 | 2% | 0 | 4% | 2% | 4% | 5% | 3% |
| internal unstable | 0 | 75% | 67% | 85% | 77% | 83% | 76% | 79% | 78% | 71% |
| external stable | 0 | 13% | 25% | 9% | 5% | 2% | 5% | 4% | 4% | 6% |
| external unstable | 0 | 6% | 13% | 4% | 18% | 11% | 17% | 13% | 13% | 20% |
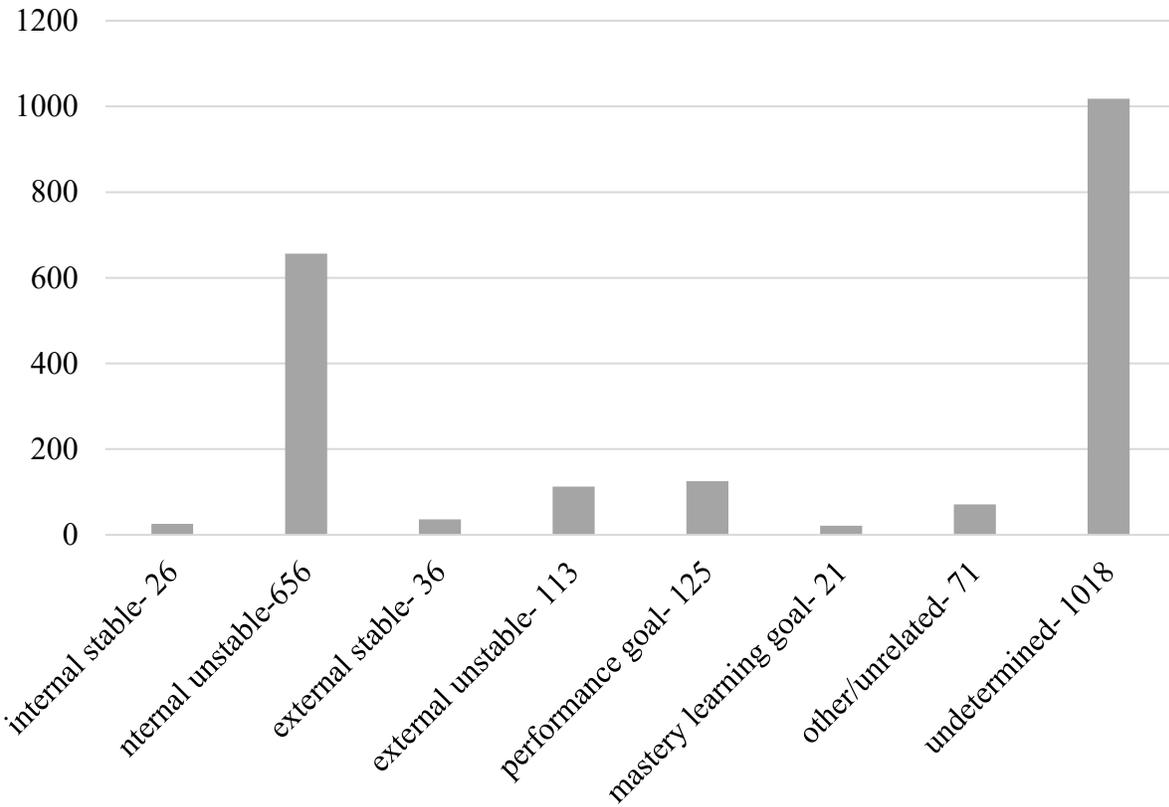
Figure 2. Students were asked to "State five reasons why you think some students do well in chair testing," and "State five reasons why some students <u>do not</u> do well in chair testing." From their responses, categories were created through the analyzation process.
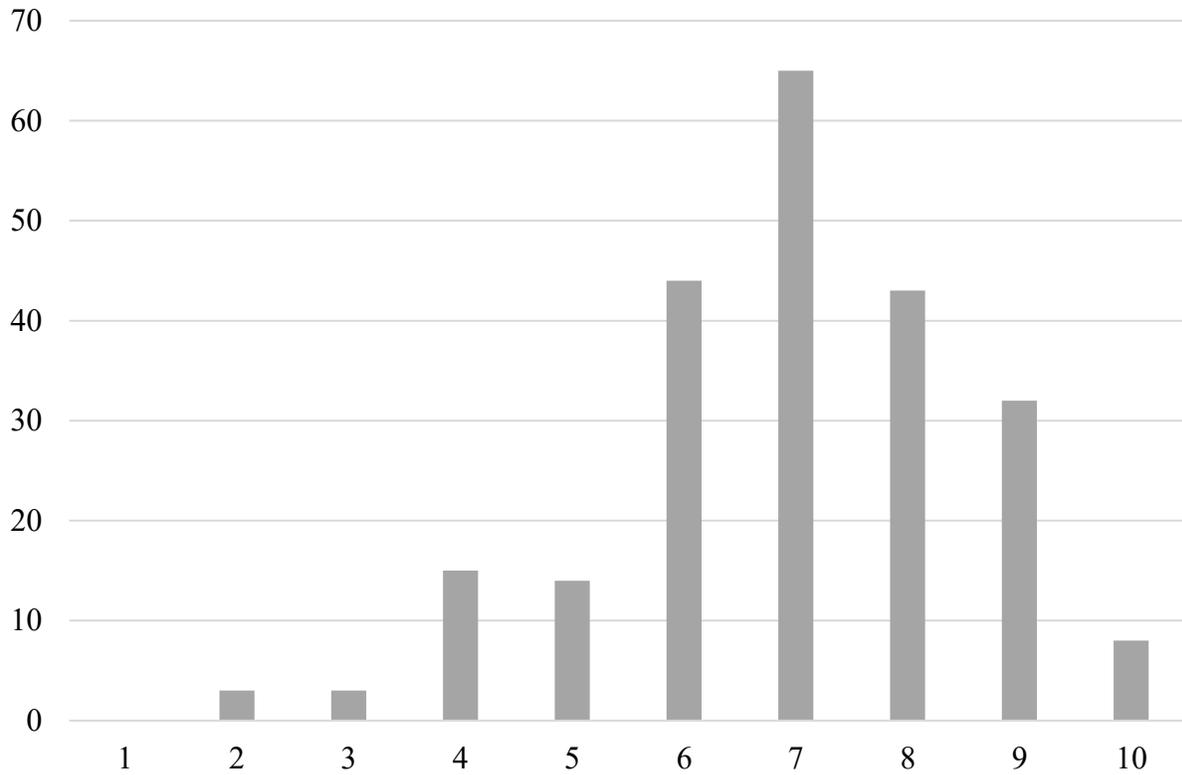
Figure 3. The ratings are from the student response forms indicating motivation on a scale from 1 to 10 with 10 being the highest. This graph shows the frequency of student responses for each number on the scale. The total amount of responses for motivational scale ratings was 227.
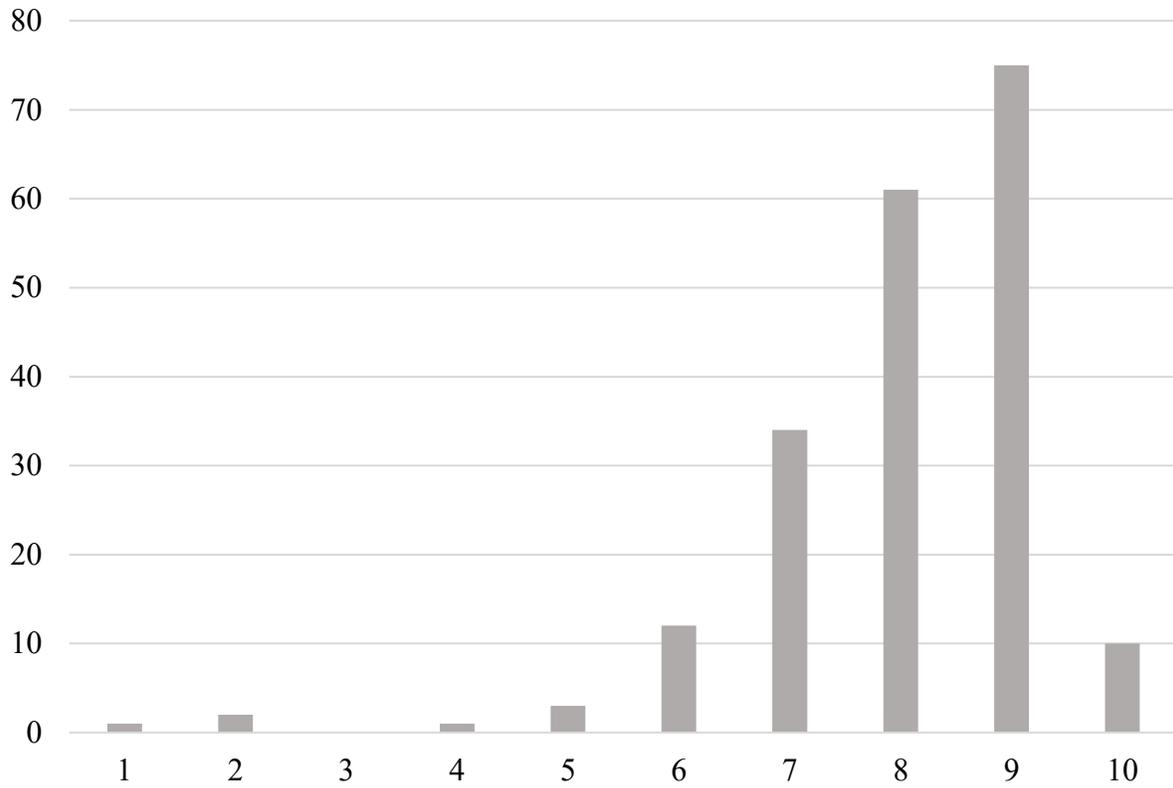
Figure 4. The students rated their own average chair test score for the duration of that teacher's class. The scale was 1 to 10 with 10 being the highest.

## DISCUSSION

The purpose of this study was to identify how string students explain success and failure on a chair test. A secondary purpose of the study was to analyze how these attributes correlate with student motivation. Through analyzing the student attributions, gaining insight into the motivational value of chair testing will be a useful resource for string teachers. This chapter will cover a summary of the study, implications for educators and others in the field of music education and recommendations for further research and classroom strategies.

### Summary

**Sample and Instrument.** This investigation consisted of a survey administered to middle and high school string students and their teachers about chair testing goals, motivation and attributes within their classrooms. The sample size was two high school and seven middle school string classes. The teachers at these schools utilize chair testing in their classes. The survey was administered to teachers to identify the goal of the chair test. The teachers also responded to a question about what chair placement means in their class. Once they completed this, the teachers administered the student survey to the eligible classes. The survey for the students asked them to list (a) five reasons why they think some students do well, (b) five reasons some students do not do well on a chair test and (c) what the goal(s) of the chair test was. They were also asked to place on a scale from one to ten how motivated they think most students are to do well on a chair test. Students then rated their own average performance rating on the chair tests that they have previously taken with their current teacher. Along with these questions, some demographic

information was gathered, which were grade level, years of playing current instrument and current instrument.

**Process.** I solicited participation from all string teachers in the district after I secured permission. Once they agreed to participate, I sent an email to the building principals at each site to gain their approval. Then, I sent the informed consent documents through school mail for each site. I personally picked up the consent forms, made a list of students who could participate and left the number of surveys needed at each site. This process took a few weeks to get everything sent out. In person, I collected all surveys within the week that they were completed. All surveys were completed before the end of December, 2019.

**Analysis.** I began the analysis by typing all of the answers into an Excel spreadsheet. I had one tab for student answers and one for teacher answers. I went through my research questions and began to code the different elements of the survey. Attributional responses, a motivational scale, comparisons between attributions and motivational scale, achievement ratings and motivational scale were all set up into figures and tables (See Results). The attributional model prescribed by Weiner (1974) was followed to find the four causal categories of attributions. They were (a) internal-stable, (b) internal-unstable, (c) external-stable and (d) external-unstable. This was to examine what degree of perception the students had on control over the outcome of the chair test. I used these categories to code each set of responses from the students. I then looked for specific language patterns in the remainder of the responses that could not be coded as attributional and found a pattern that could be explained by achievement learning goals. The two response categories in this part of the coding process were mastery learning goals and performance goals. This was to examine motivational goals that were linked to student perceptions of the outcome of chair testing. Included in the figures was a graph of frequencies in

the rating scale for the average chair test score provided by the students. I decided to leave these data out of the comparisons because I found the validity of these data to be questionable. The purpose for this question was for the students to rate their own score, while most of the other questions were about how they interpreted the perceptions of others.

**Discussion**

This study was based upon the premise that if a student believes that the outcome is something that they have control over, then they will be more motivated to participate in the learning task and therefore achieve higher on the task at hand. Motivation is a significant concept for music educators because they can impact the degree to which students continue to remain actively involved in music for the rest of their life. This study focuses on motivation because it is crucial for engagement in future musical tasks and the development of intrinsic qualities that lead to mastery learning goals and higher achievement. Competition is a means to motivate students by using a chair test as a motivational reward (Miller, 1994; Saldana, 2008). The problem is that students do not necessarily see the reward of chair testing in the same way that teachers do. Chair testing gives students value based upon their performance on a test but not meaning for a personal commitment to music making, as stated by Saldana (2008).

In this survey, I asked the students to rate on a scale from one to ten how motivated they believe most students are to do well on a chair test. The ratings given suggest that most students view others as somewhat or very motivated to do well on a chair test.  I found that while the question did not ask the student to state how motivated they themselves were, they could have very well interpreted the question from that perspective. For years, theorists and educators have

suggested that encouraging students to become more motivated through mastery learning goals rather than performance learning goals would cause them to be more successful in learning (Maehr et al., 2002; Mayer, 2007; West, 2013). To explore this, I categorized their responses about why they thought some students do well and why some students do not do well on a chair test. What I found was that the highest number of responses fell in the undetermined category because there was not enough information for me to analyze their responses in line with Attribution Theory. A smaller portion of responses fell in the other/unrelated category, because they were unrelated to the question asked. I then categorized the remaining responses into two major theoretical frameworks, which were Attribution Theory and Goal Theory.

Attribution Theory provides an explanation of how students perceive the relationship between control and their achievement (Urdan & Turner, 2007). How a student perceives the attributes of a task will greatly influence future motivation to engage in the task again (Diener & Dweck, 1978; Weiner, 1979). Maehr et al (2002) found that when students believe that achievement results from external-stable factors such as luck or the difficulty of a task, they were less motivated to work hard towards a goal. If they viewed their achievement as the result of controllable/internal and unstable factors like practice, then they were more likely to be engaged and exert effort. Most students in this study indicated that they do in fact perceive that they or other students have control over the outcome of the chair test. Few students believed that what they cannot change about the situation (stable attributions) internally or externally did not affect the outcome.

I utilized a similar approach to Asmus (1986) by focusing on students' responses to the question, "State five reasons why some students do well in music and five reasons why some students do not do well in music." This study took a narrower approach in exploration of

attributions compared to prior music education research by placing attributions in a chair-testing context. Asmus's (1986) survey collected data based on music students' attributions towards success and failure in music in general. In that study, internal-stable and internal-unstable were the two categories with this highest percentage of responses (Asmus, 1986). Perhaps Asmus's (1986) conclusion that effort promotes more persistence in task completion is correct. If students perceive the outcome as something that they have control over, they will be more likely to engage in like-tasks again (Urdan & Turner, 2007). There are two foci in this study. The first is on the competitive nature embedded in the chair testing outcomes. The second is on how students view the control they have over outcomes and to what extent this affects their motivation and achievement. These findings might be useful in guiding future research to examine the qualities of music education classrooms that impact how students view the control they have over outcomes.

People naturally select goals based on either mastery learning achievements or performance learning achievements (Hruska, 2011). Mastery learning goals emphasize the challenge of learning and understanding with a goal of continuous improvement regardless of how many mistakes might be made. Performance goals stress the importance of high ability and accomplishment without failure during the achievement task (Wiseman & Hunt, 2008). McPherson et al (2007) states that performance goals in music will motivate students to out-perform others and further their need to demonstrate competence to others. The majority of the students in this study felt the need to compete, out-do one another or at least recognized this as a reality of chair testing. Some indicated that they were fearful of disappointing their peers or teachers. They appear to be more concerned with how others perceive their competence rather

than with mastering the task (West, 2013). Unfortunately, chair testing may be evoking competitive situations harmful to learning for these students.

Making self-efficacy and self-regulation explicit outcomes in music teaching could provide teaching resources for guiding the attributions that students had given for success and failure. Miksza (2011) describes self-efficacy as a theoretical precursor to indicators of intrinsic motivation such as goal setting and persistence on tasks. This is information that was not explored in this study. According to Ryan and Deci (2000) and Woody and McPherson (2010) for students to participate in higher musical levels, they must feel that they have power over their choices, feel that they are competent in their skill and feel like they belong or are connected to others. This is another area that was not explored—feeling competent or feeling like they belong. One thing that teachers can do is to reflect on their own classroom strategies, pedagogies and management, since most likely the results from the survey might not be the same in every school or classroom. In planning the most effective use of chair testing in their classroom, teachers could consider if their students believe that they have control over the outcome of their tests or if their students believe that others have control over the outcome. This would be a good extension to explore from this study. Perhaps a discussion with the class would be beneficial. Scruggs (2009) suggests a constructivist approach within a student-centered classroom. This could be applied to other classrooms to allow students to feel as though they have more input. Even though in my study the majority of students felt they or others had control over the outcome, there were still many who did not feel this way.

The conceptual distinctions in Attribution Theory and Achievement Goal Theory can help teachers to understand the differential effects that chair auditions can have on student experiences (Ames, 1984; Asmus, 1986; Schmidt, 2005; Weiner, 1974). Attribution Theory

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helps us to recognize how students develop perceptions of their own capacity and how this affects outcomes. Achievement Goal Theory allows us to understand how students frame goals for themselves. Long-term, performance avoidance orientations, if formed, will likely lead to students discontinuing playing their instruments. Teachers should share information that helps their students. Open communication with students could deepen understanding about chair testing, motivation and student perception and the effects on learning (Yi, 2019). While adverse effects could arise from conversing with students about their perceptions about chair testing—such as disrespectful comments, arguments or inappropriate language—there are ways to counter balance a healthy discussion about differences in goal orientation with respectful classroom behaviors. Leading students through tough discussions can seem daunting, but laying ground rules for discussion such as taking turns, listening to others without interruption and refraining from inappropriate language are strategies that can be used. Notably, teachers will need to integrate learner orientation strategies with other considerations given what they know about their own class.

**Implications and Recommendations**

**Goal Setting and Discussion in Classrooms.** One of the outcomes of the study was the disconnect between teachers' curricular purposes of chair testing and how these goals were internalized by students. Many teacher participants stated that the goal of chair testing was something to the effect of, "chair seating placements." Most indicated that they shared their goal with their students and considered the goal of testing as determining chair order. However, some did not, and both the lack of sharing rationales for chair testing with students and the disconnect between the indication of performance goals as reasons over mastery-learning goals by students

is concerning. It would benefit the students if the goal of testing no longer included a seat given to them based on their score or performance. In sharing this with students, more positive opportunities can be created for motivational alignments with mastery learning goals.

**Using Assessment to Track Student Growth.** One interpretation of these results is that chair testing is, in part, an outdated system. It inflicts unnecessary and unhealthy competition and results in boosting some students while discouraging and disincentivizing others. So, the actual learning content of the test spot may also be diminished because students are more focused on the competition. Also, it can send the wrong message to students about teachers' perceptions of their efforts and as people. There are positives to chair testing, however. It can show us which skills students are struggling with and provide information for tracking students' individual needs. A closer examination of its implementation and how it is perceived by students is in order.

**Sharing Information with Our Students.** The results of this study draw awareness to how beliefs affect what students take away from chair placement experiences. Teachers can benefit from reflection on their own classroom practices, beliefs, pedagogies and teaching strategies. Scruggs (2009) suggested utilizing a student-centered classroom where students have input on things like testing. Perhaps this would encourage students to use their own intuition and knowledge and lead to students feeling as though *they* have more say in matters and therefore feel more in control. Student beliefs that result from chair testing have many consequences. What the students perceive as *their* goal will drastically affect the way that they approach the task. A more competitive goal like a good chair might lead to performance-oriented goals. A more learning-geared goal like skill improvement might lead to mastery-oriented goals (Sandene, 1997). If they view the outcome as something they can control, then they are more likely to engage in similar tasks in the future (Ames, 1992).

Scruggs (2009) also recognizes how important guidance and facilitation are in student-centered classrooms. Student ideas may contain errors and need to be supplemented or revised especially in competitive-oriented classrooms. Student reflection strategies that actively engage students such as whole class discussion, an online polling system or a simple show of hands might be useful for prompting students to make musical decisions and be in charge of their own learning. What may be useful is for teachers to be open about the plans, pedagogies and reasons behind the change to a more student-centered, less competitive seating arrangement and class (Yi, 2019).

Several string pedagogues have suggested alternative strategies to traditional chair tests (Droste, 2013; Scruggs, 2009; Wrochem, 1971; Yi, 2019). The most commonly mentioned one is the rotation arrangement (Droste, 2013; Scruggs, 2009; Wrochem, 1971; Yi, 2019). Students are rotated either individually or by stand. Each rehearsal the musicians are rotated up. Once they reach the front, they go to the back again. Some teachers might not choose every rehearsal but this strategy can still alleviate some of the negative perceptions students have that lead to poor motivation.

Based on the same concepts, solos in orchestral music can also be treated with the same intentions as chair testing by creating an audition process that does not promote competition. One way would be to gather the students who would like to audition, record them individually and then play the recordings for the class to hear and vote on. I use this strategy in my classroom by labeling each recording anonymously and then playing them in a random order for the class. This creates a safe environment for all students who want to try out. It also escapes the competitive nature of students voting for their friends or who they think should get it based on class merit often derived from the teacher. Another result is that the entire class gets to have

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input on who gets the solo, causing them to be more engaged and take more ownership of their learning in the class. Teachers may want to make stipulations for solo auditions that work best for their class. These may include attendance, behavior and responsibility.

These changes would require some effort and time for planning and preparation. These alternative seating methods would not be reliant on a test. Instead, the test can be used strictly for feedback for the student and a grade, if the teacher sees fit. The seat and the test become detached, which would disintegrate the idea that a chair gives one value.

Teachers can begin to use testing and seating arrangements as part of a broader strategy to foster mastery orientations with their students. Most educators would agree that guiding students to a mastery learning goal is far superior to a performance-based goal. Mastery learning goals stimulate intrinsic motivational behaviors and will most likely lead to further learning.

**Changing the Relationship Between Testing and Chairs.** To help teachers get started on how to incorporate this research into their practices, I provide criteria to consider when restructuring chair seating and testing. Then, I will guide preparation and planning for adjustments that may be needed.

Identifying the goals teachers have for chair testing, identifying the goals that students have for chair testing and using this information to guide class discussion is a beneficial starting point. What is chair testing used for? What is the meaning of a chair? What is the goal(s) of chair testing? What do students perceive the goal is of chair testing? The extent to which goals are causing a competitive nature, or fostering a mastery-learning environment, is an important consideration. Likewise, it would be very helpful to ask questions of students and create plans to help them foster mastery learning goals by encouraging autonomy.

For example, a brainstorm session is a good way to think through how to restructure testing and seating. Being open with students is the first thing to do before implementing a new structure. Several seating arrangements could be discussed with students to consider in terms of how the class is set up. The criteria to consider are physical space, student visibility, sound production for rehearsal feedback, conductivity for teaching lessons and that the setup does not create any competitive scenarios or opportunities for students to become lost, inattentive or disengaged. It is also important to consider the students who have IEPs, 504 plans, behavioral issues and the effect on classroom management procedures. In changing the seating, students should be prepared and equipped with their own music, and teachers should communicate any other class procedural changes. Involving students in the process and reflection of the changes as they occur, will help foster a cohesive environment.

Nevertheless, some disagreement and chaos on a new approach should be anticipated. Yi (2019) stated that in her application of alternative seating placements, it caused some push-back from her school community. The new method might not work once it has been implemented. Trial and error will likely be an important part of this process so ongoing communication is important. Letting students know that failure could happen can ease tension and stress and that making changes is a constant part of the process for improving can provide an example of resilience for students.

**Suggestions for Future Study.** Before considerations are made for future music instruction, readers should be conscious about the limitations for future research stemming from this study.

     1.) The study was limited to the orchestra programs in one southwest Missouri district.

2.) The survey reflected teacher and student perceptions and not the observed practices or real grades of teachers or students.

3.) The study procedures were implemented by classroom teachers in their respective classroom. While uniform procedures were developed, the fidelity of implementation was not monitored.

4.) Participants may have interpreted survey items from multiple perspectives.

5.) Random and unknown factors could have influenced the findings of the study.

Since the study only involved orchestra programs from one southwest Missouri district, these data may differ from other regions and ensemble types. I recommend that the similar research designs be used in future research to include varying districts and types of ensembles. Additionally, I did not personally observe the practices of teachers or the individual performance of the students, so the information collected from teachers was not verified. These participants may have not closely followed all protocols in the study. Next, the responses from the students may have used different interpretations in responding to questions. For example, the wording "most students" that came from a question cannot only be viewed as a strict response from other students' perspective. This open-ended questionnaire format was used in the Asmus (1986) survey. It would be beneficial to use a more internally-guided survey of student responses to narrow the field of responses in order to gain perspective on the comparisons among an individual student's motivation, attributions and achievement. I chose to broaden it to gain a larger viewpoint from the students. Additionally, the participating schools had varying response rates and rates of participation, so the results may not reflect the full range of particular schools, classes and grade levels. Future researchers should strive for the best possible sampling in the schools participating. Perhaps an incentive for participation would entice more teachers to participate or allow more time to secure fuller participation. Another possibility is to utilize orchestra teachers with instructional responsibilities at both the high school and middle school

level, perhaps giving more time to survey both schools and grade levels within those schools for better sampling.

**How Chair Testing Fits into Music Instruction.** Chair testing has a long-standing tradition in orchestral ensembles, but its use reflects an important curricular decision that involves considerations of motivation, self-efficacy, goals, competition and achievement. Chair testing is something that should not be taken lightly but rather carefully considered. While chair testing is a well-established tool for string classrooms, students recognize it as being a large part of their orchestra class, as well. Chair testing is capable of providing students and teachers with a large amount of data, decisions and perceptions. The largest and most obvious outcome to students is the chair placement. Based on this research, creating a seating method that evokes future motivation, high achievement, less competitive constructs and more learning-based goals for all students would be ideal. Testing can be used for individual purposes such as feedback for students and skill level checks for teachers, instead of ranking students (Miller, 1994; Saldana, 2008). It would be beneficial for educators and their students to review and modify if necessary their own practices, methods, goals and pedagogies regarding the tradition of chair testing. Also, it would be valuable for educators to use assessment as an intentional strategy for supporting students' motivation.

The concepts addressed in the research for this study support the idea that students need better systems of seating. Motivation through competition has been shown to compromise the art of music learning and allow student perception of the goal of chair testing to continue as a chair placement (Miller, 1994). Perception of control over the outcome is an important factor for students to not only want to continue to reach teacher and student-defined goals but also to encourage a mastery learning orientation. It is valuable for string teachers to consider reflecting

and modifying seating and testing practices. This has the potential to create learning

opportunities that do not create de facto relationships between testing and chair placements but

instead relate learning to enhancing intrinsic motivation.

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# APPENDICES

## Appendix A: Schatt (2011) Practice Questionnaire

Practice Questionnaire

The following survey will ask you a variety of questions regarding your feelings toward practice. Please take your time and read each item carefully. Circle your answer describing how you feel about each statement utilizing the following scale:

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

1. I practice my instrument because I do not want my teacher to think I am a poor student.

1 2 3 4 5

2. I practice my instrument because I enjoy a challenge.

1 2 3 4 5

3. I practice my instrument because I want to receive high grades from my teacher.

1 2 3 4 5

4. I practice my instrument because I do not want to receive criticism from my teacher.

1  2 3 4 5

5. I practice my instrument because I want my teacher to think that I am a good musician.

1 2 3 4 5

6.  I practice my instrument because the skills that I develop are really interesting to me.

1 2 3 4 5

7.  The effectiveness of my practice is due to my own natural music ability.

1 2 3 4 5

8.  I feel that I am capable in practicing my instrument successfully.

1 2 3 4 5

9.  Whether or not I succeed in music has little to do with my practicing.

1 2 3 4 5

10.  Practicing well is a result of my own personal hard work.    1 2 3 4 5   (Please Continue

On The Opposite Side Of This Paper)

11.  Whether or not I practice well has more to do with luck than anything else.

1 2 3 4 5

12.  It is useless for me to practice because most people are better musicians than I am.

1 2 3 4 5

13.  If I practice hard enough, I can learn to play anything.

1 2 3 4 5

14.  The best musicians in my band practice more than I do.

1 2 3 4 5

15. If I practiced more, I could achieve the same results as the best instrumentalists in my band.

  1 2 3 4 5

16. If I want to improve on my instrument, I could practice my instrument more.

  1 2 3 4 5

17. Practicing my instrument is the best way for me to improve my musical skills.

  1 2 3 4 5

18. It is necessary for me to practice my instrument to achieve musical success.

  1 2 3 4 5

19. I practice my instrument because I enjoy accomplishing personal goals.

  1 2 3 4 5

20. I enjoy practicing because I like solving problems.

  1 2 3 4 5

21. I enjoy practicing my instrument because it allows me to express myself.

  1  2 3 4 5

Thank you for taking the time to answer this questionnaire regarding your feelings about practice. Please take one more moment and complete the following anonymous questions:

Directions: Please circle your answer or fill in the blank for each question.

A. Gender: Male  Female

B. Grade in School: Freshman Sophomore      Junior        Senior

C. Years of Playing A Band Instrument:    Years

D. Have You Ever Taken Private Lessons On Your Band Instrument?  Yes No

 If Yes, How Many Years Of Lessons Have You Taken?   Years

E. In General, How Many Days Each Week Do You Practice Your Band Instrument?     0 1 2 3
4 5 6 7

F. In General, How Many Minutes Each Week Do You Practice Your Band Instrument?

 0-30  30-60  60-90  90-120  120+

Once again, thank you for taking the time to complete this survey.  Please hand in your
questionnaire to your band director or another assigned student for collection.

**Appendix B: IRB Approval Letter**

**Missouri State**
U N I V E R S I T Y

**To:**
Daniel Hellman
Music

**RE:** Notice of IRB Approval
**Submission Type:** Initial
**Study #:** IRB-FY2019-263
**Study Title:** Attribution Theory Applied to Traditional Chair Testing In Orchestra and Its Effects on Student Motivation
**Decision:** Approved

**Approval Date:** September 29, 2019

This submission has been approved by the Missouri State University Institutional Review Board (IRB). You are required to obtain IRB approval for any changes to any aspect of this study before they can be implemented. Should any adverse event or unanticipated problem involving risks to subjects or others occur it must be reported immediately to the IRB.

This study was reviewed in accordance with federal regulations governing human subjects research, including those found at 45 CFR 46 (Common Rule), 45 CFR 164 (HIPAA), 21 CFR 50 & 56 (FDA), and 40 CFR 26 (EPA), where applicable.

Researchers Associated with this Project:
**PI:** Daniel Hellman
**Co-PI:**
**Primary Contact:** Rosanna Honeycutt
**Other Investigators:** Daniel Hellman, Rosanna Honeycutt

**Appendix C: Student Response Form**

*Student Response Form*

All information given on this document will remain anonymous. The answers you provide on this document will be used solely for this study. Please complete the *entire* form before submitting. Please follow all instructions given by your teacher.

**Instrument currently playing in orchestra: _____**

**Years of playing current orchestra instrument: _____      Grade level: _____**

**Please provide an average chair test score for yourself based on performances of chair tests from this school year and past school years combined. The scale is between a 1 and 10, 10 being the best.            _____**

Please carefully consider the following and answer within the given space. If more space is needed, please continue on the back of this form. Bullet points are fine.

**State five reasons why you think some students do well in chair testing.**

**State five reasons why some students <u>do not</u> do well in chair testing**.

**On a scale from 1 to 10, 10 being the highest, how motivated do you think some students are to do well on a chair test?  Circle the number**

1     2     3     4     5     6     7     8     9     10

*Low motivation*                                         *high motivation*

**What is the primary goal(s) of the chair testing in your class (high chair placement, good grade, growth of skill set, etc.)?**

**Appendix D: Teacher Response Form**

*Teacher Response Form*

All information given on this document will remain anonymous. The answers you provide on this document will be used solely for this study. Please complete the *entire* form before submitting.

**Grade level(s) represented in orchestra class:** _____

**Have you had at least 1 chair seating assessment with all students represented in this class?**

**Circle one:**          Yes          No

**What is the primary goal(s) of the chair testing (high chair placement, good grade, growth of skill set, etc.)?**

**Do you tell the students the goal(s) for chair testing them? What does each chair placement mean in your class? (ex. getting a higher chair mean that you did better than others…?)**

## Appendix E: Teacher Informed Consent

**Consent to Participate in a Survey**
**Title:** Chair Test Survey

**Investigator**
Rosanna Honeycutt, BME
Department of Music Education

**Description:**
You will be writing down responses about chair testing in your class for this study.  The study will take place in class where you will be asked about chair testing and the goals, motivations, and personal achievement in chair testing. The survey will take approximately 15 minutes.

**Risks and Benefits:**
There are no obvious risks of participating in this experiment.  The methods and materials are similar to those involved in taking a classroom survey.

**Confidentiality:**
Your name or any identifying information will not be asked for or used in the thesis or any published materials.  All information gathered from students will remain private. No information or materials for or related to this study will be kept, copied, or destroyed. Only Rosanna Honeycutt and her assistant will have access to the data collected for this study.  All data associated with this study will remain confidential.

**Right to Withdraw:**
You do not have to take part in this study.  You may leave any questions or parts of the survey blank. Whether or not you choose to participate or to withdraw will not affect your standing in employment or other formal/informal groups amongst colleagues.

**IRB Approval:**
This study has been reviewed by Missouri State University's Institutional Review Board (IRB).  The IRB has determined that this study fulfills the human research subject protections obligations required by state and federal law and University policies.  If you have any questions, concerns, or reports regarding your rights as a participant of research, please contact the Office Research Compliance at 836-4132.

**Statement of Consent**

Teacher: I have read the above information. I have been given a copy of this form. I have had an opportunity to ask questions, and I have received answers. I consent to participate in the study.  I agree to follow all guidelines for confidentiality of the students and myself as a participant.

Name of teacher: _____

_____
Signature of Participant                    Date

_____
Signature of Investigator                    Date

Appendix E-2: Student Informed Consent

**Consent to Participate in a Survey**
**Title:** Chair Test Survey

**Investigator**
Rosanna Honeycutt, BME
Department of Music Education

**Description:**
You will be writing down responses about chair testing in your class for this study. The study will take place in class where you will be asked about chair testing and the goals, motivations, and personal achievement in chair testing. The survey will take approximately 15 minutes.

**Risks and Benefits:**
There are no obvious risks of participating in this experiment. The methods and materials are similar to those involved in taking a classroom survey.

**Confidentiality:**
Your name or any identifying information will not be asked for or used in the thesis or any published materials. Only Rosanna Honeycutt and her assistant will have access to the data collected for this study. All data associated with this study will remain confidential.

**Right to Withdraw:**
You do not have to take part in this study. You may leave any questions or parts of the survey blank. Whether or not you choose to participate or to withdraw will not affect your standing in class (grades, chair, etc.).

**IRB Approval:**
This study has been reviewed by Missouri State University's Institutional Review Board (IRB). The IRB has determined that this study fulfills the human research subject protections obligations required by state and federal law and University policies. If you have any questions, concerns, or reports regarding your rights as a participant of research, please contact the Office Research Compliance at 836-4132.

**Statement of Consent**

Parent: I have read the above information. I have been given a copy of this form. I have had an opportunity to ask questions, and I have received answers. I consent for my child to participate in the study.

_____
Signature of Parent                    Date

Student: I have read the above information. I have been given a copy of this form. I have had an opportunity to ask questions, and I have received answers. I consent to participate in the study.

Name of student: _____

_____
Signature of Participant               Date

_____
Signature of Investigator              Date

**Appendix F: Teacher Script and Procedures**

*Teacher Script and Procedures*

To the teacher:

Hello! Thank you for devoting your time and the time of your students to participate in this study. Your submissions will be of great help to enhance the knowledge that we, music educators, have on the subject of chair testing and what it means to students' motivation and achievement.

Here are some procedures followed by some preparation information and the script that you will use when administering the Student Response Form:

1.) The Student Response Form should only be given to a class that you have already had *at least one* chair test assessment with.

2.) Please administer the student response form to your class no closer to a chair test than two weeks before or two weeks after.

3.) Please continue with class procedures and lessons as you normally would leading up to date of administering the Student Response Form.

4.) The Student Response Form is anticipated to take between five to fifteen minutes, but it is recommended that you set aside a thirty minute window for instructions and collection.

Teacher preparation before administering the Student Response Form:

1.) Please complete the Teacher Response Form.

2.) Review the teacher script for administering the Student Response Form, and allow time for any questions you may have for me.

Script for the day of administering the Student Response Form:

**Teacher to students:**

"Please take out a writing utensil, and wait for further instructions once the form is handed to you. Do NOT begin writing until further instruction."

*Pass out the forms-make sure everyone has one.*

**Teacher to students:**

"Once you have a survey in front of you, you may begin to fill out the form. You should complete the form entirely before turning it in.

When you are finished, please raise your hand and I will come pick it up. Remain quiet while the others are completing their forms. Please do not talk to other students while working on this form. If you have a question, raise your hand, and I will come to you."

*Please collect the forms immediately as they finish. Do not wait until everyone is done.*

*You may give them a time restraint, but no less than 15 minutes.*