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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

ACHIEVING MUSICAL PEAK PERFORMANCE: THE  
IMPACT OF AN ONLINE SELF-EFFICACY AND  
PERFORMANCE ANXIETY MANAGEMENT  
PROGRAM BASED ON MASLOW'S  
HIERARCHY OF NEEDS

A Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Arts

Melynie Joy Campbell

College of Performing and Visual Arts  
School of Music  
Music Education

August 2019

This Dissertation by: Melynie Joy Campbell

Entitled: *Achieving musical peak-performance: The impact of an online self-efficacy and performance anxiety management program based on Maslow's Hierarchy of Needs*

has been approved as meeting the requirement for the Degree of Doctor of Arts in College of Performing and Visual Arts in School of Music, Program of Music Education.

Accepted by the Doctoral Committee

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Dr. Mark Montemayor, Research Advisor

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Date of Dissertation Defense \_\_\_\_\_

Accepted by the Graduate School

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## ABSTRACT

Campbell, Melynie. *Achieving musical peak-performance: The impact of an online self-efficacy and performance anxiety management program based on Maslow's Hierarchy of Needs*. Published Doctor of Arts dissertation, University of Northern Colorado, 2019.

Every musician should be encouraged to strive for peak performance; however, many musicians do not know how to achieve it. Although there is a significant amount of research done on music cognition, music therapy, and musical behavior, the research that aims to expose the inner workings of the performer's brain is still in its infancy. In the field of Sports Performance Psychology, there have been many performance-based studies designed to discuss this idea among athletes; however, to date, there has not been a correlation for how to attain peak performance results among musicians.

To bridge the relationship between the theories found in Sports Performance Psychology and music performance, I created an online program entitled *Maslow for Musicians*, which draws from a wide range of psychological theories such as Maslow's Hierarchy of Needs, Goal Setting, Mindset, Flow, Learning Styles, Self-Efficacy, Self-Attribution, and Baby Steps/Tiny Habits. This self-directed online program was created to foster an environment that could encourage musical peak performance right at the fingertips of the user. The purpose of this study was to discover if the application of the *Maslow for Musicians* program is beneficial to help musicians work towards peak performance.

Participants at the University of Northern Colorado ( $N = 25$ ) went through a five-week intervention using the *Maslow for Musicians* program to measure weekly confidence, flow, emotional/mental fulfillment, and overall performance experience. In addition, participants were also given The Positivity Scale, the Performance Anxiety Inventory, and a self-created assessment of current musical abilities pre- and post-intervention with the addition of the Measurement of Self-Actualization Index post-intervention.

Using a mixed methods design, the quantitative data from this study found an increase in perceived weekly confidence ratings, along with engagement in flow, perceived emotional and mental fulfillment, overall performance experience ratings, personal optimism, perception of musical abilities, and a decrease in performance anxiety scores from pre-intervention to post-intervention. Survey data collected also found that 23 out of 25 participants felt happy with their performance progress throughout the duration of the intervention and believed that the *Maslow for Musicians* program helped strengthen their practice routine and overall feelings of personal musicianship. Further preliminary inferential statistical analysis found significance in confidence, overall experience, personal optimism, and musical abilities. Likewise, qualitative data supported quantitative findings through thematic coding analysis suggesting progression of confidence, change in mindset, belief in one's self and musical abilities, positivity, improvement, and creation of new habits. Post-intervention, 22 out of 25 participants reported that they felt to have either achieved or were close to achieving musical self-actualization, and 24 out of 25 participants reported that they would continue using the

*Maslow for Musicians* program in the future. Although the sample size is small, further implications for future study are discussed throughout this paper.

## ACKNOWLEDGEMENTS

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Lastly, I would like to dedicate this document to my family. Thank you so much for all of your love, help, and support throughout this journey, I truly couldn't have done it without you! Thank you, from the bottom of my heart, for always believing in me and telling me I could do anything I wanted to do and become whoever I wanted to be. You are the best support system that anyone could have ever asked for, and I am beyond grateful and blessed to have such wonderful people in my life. I am so incredibly proud of the person that I have become, and that is because of you. You are my rock, my best friends, my everything, and you mean the world to me. To my mom, Julayne, my dad, Mike, and sister, Nicole—this one is for you! I love you to the moon and back!

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## CHAPTER I

### INTRODUCTION

#### **Statement of the Problem**

Every musician should be encouraged to strive for peak performance.

Unfortunately, many musicians do not know where to start when trying to get there due to lack of resources to truly understand the nature of it. For this project, I created an online program called *Maslow for Musicians* aimed to foster an optimal performance or practice environment to encourage peak experiences and promote musical confidence and self-efficacy. Using this program, musicians can track their progress through their journey to achieve peak performance, as well as to learn how to encourage peak experiences in their students through instruction. Essentially, this program is to be used as a motivational tool to work towards obtaining musical freedom and Self-Actualization.

*Maslow for Musicians* integrates several different theories such as Maslow's *Hierarchy of Needs*, goal setting, mindset, flow, and differences in learning styles. Each theory is structured around different goals and beliefs; however, it can be argued that each can be equally applicable when working towards peak performance especially within the realm of music performance. *Maslow for Musicians* introduces these theories to the user and also helps the user understand the importance of each theory and why it should be applied to the musician's practice and performance routines.

Although there is a significant amount of research done on music cognition, music therapy, and musical behavior, research studying the effects of theories found in

Sports Performance Psychology such as flow and goal setting in musicians is still in its infancy. There have been many performance-based studies designed for the athlete in the field of study known as Sports Performance Psychology; however, it can also be argued that the musician is an athlete as well. Therefore, an exploration of Music Performance Psychology studying the theories in Sports Performance Psychology (dissimilar to Music Psychology) and the effects (both positive and negative) on the psychological, emotional, mental, and physiological functions of the performer should be considered. Focuses include the study of stress, motivation, flow, goal setting, confidence, the creation of alter-egos, and the importance of a support system and its impact on a performer. In addition to the strategies outlined above, an emphasis within this area of study includes the exploration of the psychological aspects that contribute to the invention of art, creativity, and interpretation; the process of literally “getting into character,” and behavioral and motivational aspects (i.e., what makes the performer “tick” and why). The creation of this program has the potential to start unlocking the gateway to better music instruction, performance, and paving the way for Music Performance Psychology to come to light.

Parallels can be drawn between Maslow’s *Hierarchy* (see Appendix A) and music performance. The *Hierarchy* is a pyramid-shaped model comprised of five levels of physiological, social, emotional, and psychological needs to be addressed from the lowest level of physiological needs (e.g., food and water) progressing to the top level of self-actualization (i.e., realizing a person’s greatest potential). In order, the *Hierarchy* is comprised of the following levels: Physiological, Safety, Love/Belonging, Esteem, and Self-actualization. Similarly, successful musical performance hinges on fulfilling similar

needs found within each level of the *Hierarchy*, for example, proper hydration is considered a physiological need. Though most musicians strive toward peak performance, many have not been able to fully operate within it long enough to observe its benefits.

### **Audience**

The present study is intended for musicians of any level of musicianship as well as all music educators. The benefits to general musical practice as a result of what is learned from this study have the potential to motivate musicians to strive for peak-performance to release their greatest musical potential as well as to enhance positive and musically fulfilling experiences. Additionally, the ideas explored within this program are designed to provide further understanding of how to better instruction and encourage increased student motivation towards achieving their highest potential in their musical abilities. The ultimate goal is for the *Maslow for Musicians* program to eventually become a resource for musicians and music educators alike to start the journey towards becoming the best musician they can be and to promote an environment in which they can thrive.

### **Setting of the Study**

Because the *Maslow for Musicians* program is an online platform (see Appendix D), the setting of the study was done remotely at the discretion of the participant particularly in regards to participant engagement within the program during the duration of the study. Thus, the study is set in a self-directed learning environment that each participant chose based on their individual schedules, therefore providing some flexibility to participation scheduling. Several studies have found that a self-directed learning

environment can be beneficial to the adult learner (Chou, 2012; Firat, Sakar, & Kabakci Yurdakul, 2016; Rager, 2009). Firat et al. (2016) conducted a study to determine the design principles best used in developing educational web interfaces, which in turn would support adults' self-directed learning. According to their findings, the following design aspects were to be considered most helpful when creating self-directed learning environments:

1. It must be ensured that learners are able to keep track of their own improvement
2. Learners should be supported in terms of regular studying
3. Previous learning should be recalled
4. Learners should be enabled to add and remove interface components
5. Components that could be regulated by learners according to themselves should be included
6. Learners should be enabled to evaluate themselves
7. Self-learning should be promoted
8. Time management tools should be provided
9. Clues that could establish a relationship with real life should be presented
10. Image, video, and graphic support should be provided
11. Design variety should be ensured
12. Varied learning resources should be included
13. Components that enable learners to communicate should be included

In consideration of the design of the *Maslow for Musicians* program, a self-directed learning environment was developed, to enable participants to take charge of their own learning. Because this program works as a goal tracker, participants are able to track their own improvement, which Firat et al. (2016) described as being a beneficial factor to adult self-directed learning. Additional design elements found within the program include, but are not limited to, regular studying support (2), learning recall (3), self-evaluation (6), relationship to real-life situations (9), and image, video, and graphic support (10).

Similar to Maslow's original *Hierarchy* model, the *Maslow for Musicians* program is a motivational tool. However, the program incorporates a variety of theories in addition to the original *Hierarchy* model and is structured in a specific fashion in accordance to each individual theory. For example, one theory incorporated into the program is goal setting. On each level's page, the user will find a brief description of the level's purpose, a motivational video, and a checklist of needs specifically tailored to the musician (see Appendix D). The interactive checklist on each page allows the user to check individual progress within each level to insure needs are being met. Once all needs on the level's checklist are met, the user submits their answers by pressing the "Done" button located on the bottom of the checklist and is prompted to move on to the next level. The checklists are micro-tools to help prompt the user to begin to track progress in order to formulate an intrinsic habit of creating goals for themselves not only in the *Maslow for Musicians* program, but to transfer to any aspect of their life as well. Meyer (2003) explains that the acronym for the S.M.A.R.T goals theory stands for Specific, Measurable, Attainable, Realistic, and Time-bound. Used primarily as a motivational tool in the workplace, the S.M.A.R.T goals theory can be transferred to any type of goal setting. This method gives a higher opportunity for success when working towards achieving goals because they are set in a realistic manner that can be achieved. This idea can also be seen within the writings of psychologist, BJ Fogg (2011), and his theory of "Baby Steps" which explains that taking small steps can create a bigger change over time. Using these theories activates the reward system in the brain as progress is observed as each checkmark is achieved, therefore creating further motivation to complete the task. Neuroscientific evidence shows that when even the smallest amounts of success are



experienced, the brain secretes dopamine, a chemical associated with pleasure, learning, and motivation (Herd, Mingus, & O'Reilly, 2010). With the release of dopamine, the feeling of pleasure associated with it causes a reinforcement process to take place, therefore we are motivated to repeat the same task (Patriquin, 2016).

With this in mind, the purpose of the checklists found within each level of the program was to provide the participant with an understanding of what needs should be met prior to completing a particular level. Additionally, each need listed was easily attainable when given conscious thought (e.g., drinking plenty of water or promoting positive self-confidence) and provided further opportunity to ultimately better the mind and body of the musician.

### **Purpose of the Study**

This study aimed to discover if the application of the *Maslow for Musicians* program is beneficial in helping a musician work towards peak performance within their craft. Ultimately, the question raised in this study is “does the introduction of this educational program affect perceived musical abilities in order to assist the performer in working towards achieving peak performance?” Additionally, the intent is to investigate if this program can improve reports of self-efficacy and increase levels of confidence and motivation while making music. Previous literature has explored what phenomena can be experienced during music performance and provides some information about how this is done. However, there is still research to be done to provide techniques in aiding the musician on “how” they can achieve peak performance, activate flow, and become more confident in their musical abilities to release their greatest musical potential. Therefore, the intention of this study is to start shifting the focus towards showing the musician how

to reach their potential within a scaffolding setting by using the *Maslow for Musicians* program as a training tool.

Over the course of five weeks, participants of the present study went through an intervention using the *Maslow for Musicians* program to measure weekly confidence, flow, emotional and mental fulfillment, and overall performance experience. Each participant was instructed to train within the program three times per week prior to the participant's chosen practice session or lesson to be evaluated focusing on one level per week. They were instructed to start on Level One (Physiological) and build each week to the next level. For example, the week focusing on Level Three (Love and Belonging) would start on Level One and progress only up to Level Three. Following the chosen practice session or lesson, participants were given an online survey to evaluate perceptions of their session in regards to confidence, flow, emotional and mental fulfillment, and overall performance experience. After the five-week intervention, individual interviews were conducted to further investigate accompanying factors in regard to overall personal experience with the *Maslow for Musicians* program.

## CHAPTER II

### REVIEW OF THE LITERATURE

Peak performance is something every athlete strives for and is frequently studied in Sports Performance Psychology. The intention of the following literature review is to explore the theories that contribute to athletic peak performance in addition to other psychological theories not directly associated with the literature found within Sports Performance Psychology such as self-efficacy, mindset, self-attribution, and optimism which could also become relevant to musical peak performance. Performance anxiety and self-directed learning and efficiency literature are also discussed.

#### **Abraham Maslow and the *Hierarchy of Needs***

Prior to the mid-20<sup>th</sup> century, Freud's Psychoanalytic Theory and Skinner's Behaviorism were the reigning psychological perspectives (i.e., forces) of their time. However, these theories had their own limitations regarding phenomena such as creativity, free will, and human potential and existence. Because of these limitations, Humanistic Psychology rose to prominence in the late 1930s as psychologists became interested in the uniquely humanistic issues such as the self, self-actualization, health, hope, love, creativity, nature, being, becoming, individuality, and meaning as an understanding of human existence (Bugental, 1964).

In 1943, humanistic psychologist Abraham Maslow explored the idea of "what motivates us?" He eventually concluded in his paper, *A Theory of Human Motivation*, that people are motivated to achieve certain needs. Needs are fulfilled in a progressive

fashion (once a particular need is fulfilled, a person will be motivated to fulfill the next need), thus, he created the *Hierarchy of Needs* to explain his theory (Maslow, 1943).

The Hierarchy includes five levels of motivational needs, depicted in a pyramid format. These needs include: Physiological, Safety, Love and Belonging (Social), Esteem, and Self-Actualization. According to Maslow (1943), a person must satisfy lower levels of needs before they can progress to the next level, and only when these needs have been properly satisfied can they reach the highest level of Self-Actualization. Anyone is capable and equipped to move to Self-Actualization. However, many do not due to disrupted progress by failing to meet lower level needs, such as going through a divorce (Love and Belonging), the loss of a job (Safety), et cetera. In fact, Maslow only believed that only 2% of the general population and .1% of the college population is self-actualized (Maslow, 1970, 1979). According to the Hierarchy (see Appendix A), the needs are as follows, from lowest level to highest level:

1. Biological and Physiological needs: air, food, drink, shelter, warmth, and sleep.
2. Safety needs: protection from elements, security, order, law, stability, freedom from fear.
3. Love and Belongingness needs: friendship, intimacy, affection and love, - from work group, family, friends, and romantic relationships.
4. Esteem needs: achievement, mastery, independence, status, dominance, prestige, self-respect, and respect from others.
5. Self-Actualization needs: realizing personal potential, self-fulfillment, seeking personal growth and peak experiences.

Maslow focused on the entire physical, emotional, social, and intellectual qualities of individuals and how these factors can have an impact on their process of learning. McLeod (2007) provided the example that a sleep—and nutritionally—deprived student will find it difficult to focus on learning because these other physiological needs are unmet. Additionally, students need to feel emotionally and physically safe, valued,

and accepted within the classroom to achieve academic and emotional progress.

Likewise, students with low self-esteem will not progress academically at an optimum rate until their self-esteem is strengthened (McLeod, 2007). According to Maslow (1970), a humanistic approach to education would develop individuals who are “stronger, healthier, and would take their own lives into their hands to a greater extent. With increased personal responsibility for one’s personal life, and with a rational set of values to guide one’s choosing, people would begin to actively change the society in which they lived” (p. 195).

Criticisms of Maslow’s Hierarchy theory include possible validity issues in data collected due to potential subjective biases, and the assumption that lower-level needs must be satisfied before a person can achieve their potential and self-actualize (McLeod, 2007). Regarding the second criticism, it can be possible to move throughout the Hierarchy without having to advance from one level to another in order (Tay & Diener, 2011). Results supported the view that universal human needs appear to exist regardless of cultural differences, however, the order of the needs within the hierarchy was not supported. Tay and Diener (2011) state, “[We] observed that the needs tend to be achieved in a certain order but that the order in which they are achieved does not strongly influence their effects on SWB (subjective well-being). Motivational prepotency does not mean that fulfilling needs ‘out of order’ is necessarily less fulfilling” (p. 364). For example, you can be hungry and still feel supported by your social relationships (McLeod, 2007).

### **Self-Actualization**

Maslow was one of the first to move the psychological sciences from psychopathology and behaviorism credited for determining what was “wrong with

people,” to a humanistic approach that determined what was “right with people,” which created a more positive scope of human behavior. Likewise, he was interested in the potential that humans have and finding way in which our greatest potential can be satisfied (McLeod, 2007). According to Maslow, a person never remains static, but rather is always “becoming” (growing) throughout their lifetime (McLeod, 2007). He designed the Hierarchy as a motivational tool in order to help people reach their greatest potential, or Self-Actualization. Self-Actualization is measured through peak experiences of having a sense of self and the world around you (self-fulfillment) with feelings such as joy and euphoria (Maslow, 1962). Hoffman (1988) also explains that Self-Actualization is a continuous process, rather than a single achieved state of perfection. Maslow (1943) stresses that peak experiences and fulfilling Self-Actualization are subjective and vary from person to person. While studying 18 different subjects he considered to be self-actualized, he determined that characteristics of self-actualized people included (Maslow, 1970):

- They perceive reality efficiently and can tolerate uncertainty
- Accept themselves and others for what they are
- Spontaneous in thought and action
- Problem-centered (not self-centered)
- An unusual sense of humor
- Able to look at life objectively
- Highly creative
- Resistant to enculturation, but not purposely unconventional
- Concerned for the welfare of humanity
- Capable of deep appreciation of basic life-experience
- Establish deep satisfying interpersonal relationships with a few people
- Peak experiences
- A need for privacy
- Democratic attitudes
- Strong moral/ethical standards

According to Maslow, it was not necessary to demonstrate all 15 characteristics to become self-actualized, because he did not equate Self-Actualization with perfection. Rather, Self-Actualization involves achieving one's potential. Among the people he considered to be self-actualized included Einstein, Mother Teresa, Gandhi, Beethoven, Abraham Lincoln, and Eleanor Roosevelt (Kremer & Hammond, 2013).

### **Psychological Theories within Sports Psychology**

#### **Flow Theory**

In Positive Psychology, psychologist Mihaly Csikszentmihalyi (1988, 1990, 1996, 2004) explains that in order to experience Flow, optimal experience requires a balance between roughly equal levels of perceived challenge and skill in a situation that involves intense concentration. While in a state of Flow, activities are seen as pleasurable when the challenge is matched to the person's skill levels; if the activity is too easy and skill level is high, the student will experience boredom; if activity is too challenging and skill level is low, the student will experience anxiety (Csikszentmihalyi, 1990). To remain in Flow, the complexity of the activity must increase by developing new skills and taking on new challenges. Finding the balance of individual skill levels to the task will promote a greater chance of performance success and will decrease the likelihood of experiencing anxiety while engaging in the task.

Engaging in Flow can range from small, and somewhat repetitive tasks such as chewing gum to complex behaviors such as becoming perfectly aligned with a performance task (i.e., "getting in the zone") (Privette, 1983; Csikszentmihalyi, 1990). The former is described as Microflow when the task is smaller and automatic, whereas

the latter is described as Macroflow where the Flow connection contains further levels of depth between the task at hand and individual skill level.

In an investigation of the Flow experiences of elite figure skaters, Jackson (1992) found that the triggering of Flow included maintaining a positive mental attitude, positive pre-competitive and competitive affect, maintaining focus, and physical readiness. Additionally, the disruption of Flow occurred with perceived mistakes, inability to maintain focus, a negative mental attitude, and a lack of audience response. In a similar study, there was a positive correlation between self-reports of Flow and aspects of self-concept among athletes across three different sports (Jackson, Thomas, Marsh, & Smethurst, 2001). Other triggering factors can include absorption, valuing, joy, spontaneity, a sense of power, and personal identity and involvement (Privette, 1983). Bakker, Oerlemans, Demerouti, Slot, and Ali (2011) also found that performance feedback and overall support from the coach also predicted Flow among soccer players during a soccer game.

Although there is still research to be done regarding Flow in music, there has been contribution to the literature. Sinnamon, Moran, and O'Connell (2012) found the Dispositional Flow Scale-2 (DFS-2) as a reliable scale to measure Flow amongst music students. Additionally, they found that Flow states are experienced quite frequently by music students. However, Flow factors within music making have the ability to go beyond simpler concepts such as matching task to skill set. Rather, they can function as acts of mindfulness to trigger Flow state, for example, mental clarity, emotional self-awareness, and enhanced sense of awareness (Bloom & Skutnick-Henley, 2005).



Additionally, Bakker (2005) found there to be a crossover from music teachers who engaged in Flow to influence student engagement as well.

### **Goal Setting**

In 1968, Edwin A. Locke developed The Goal Setting Theory built to help explain human actions in a given situation. According to Locke (1968), goals and intentions are cognitive and willful and serve as mediators of human actions through values. Individual values play a key role in goal setting because they determine what would be most beneficial for our needs.

Of the many concepts within goal setting, there are two specific concepts that are critical to this theory. The first concept is that setting specific goals, rather than general goals, contributes to success because it generates higher levels of performance to achieve that goal. The second concept is that the more challenging the goal, the higher the level of performance. That is, the harder the set goal is, the harder the individual will work to achieve it (Locke, 1968).

Goals can be broken down into two overarching attributes: content (chosen achievement) and intensity (the quantity of physical and mental resources needed in order to create or achieve the content characteristic). Content refers to the specific qualities of the activity or end goal, whereas intensity refers to the level of importance or meaningfulness of the goal to the individual in order to commit to achieving it.

According to Locke (1968), there are four ideas that explain how goal setting can affect individual performance:

- 1) Goals focus attention toward goal-relevant activities and away from goal-irrelevant activities
- 2) Goals serve as an energizer: higher goals induce greater effort, while low goals induce lesser effort

- 3) Goals affect persistence; constraints with regard to resources affect work pace
- 4) Goals activate cognitive knowledge and strategies that help employees cope with the situation at hand

One way in which goal-setting can be achieved is through the creation of S.M.A.R.T.-based objectives. S.M.A.R.T. goals are an organizational tool used to express the importance of objectives, the difficulty of setting them, and how the process of creating goals simpler (Doran, 1981).

These goals are broken down as such:

- S) Specific – target a specific area for improvement
- M) Measurable – quantify or at least suggest an indicator of progress
- A) Attainable – assuring that an end can be achieved
- R) Realistic – state what results can realistically be achieved, given available resources
- T) Time-related – specify when the result(s) can be achieved

Crafting a specific goal under the S.M.A.R.T. goals theory helps guide the individual to create a realistic and specific goal that can be achievable; otherwise, the process can be perceived as slightly intimidating. By breaking it down to meet specific criteria, formulating goals seems more manageable therefore creating more motivation to achieve them. Regardless of the method in which goals are set, having the impulse to set a goal must be acted upon within five seconds of the idea or the brain will release its retention (Robbins, 2017).

Among athletes, Locke and Latham (1985) found that: (a) specific and difficult goals lead to better performance than vague or easy goals, (b) short-term goals can facilitate the achievement of long-term goals, (c) goals affect performance by affecting effort, persistence, and direction of attention, and by motivating strategy development, (d) feedback regarding progress is necessary for goal setting to work, and (e) goals must be accepted if they are to affect performance. Using goal setting can become a

motivational factor to work toward performance progress in sports and physical activity (Roberts, Treasure, & Conroy, 2007). It has also been found that setting goals improves sport performance by 0.34 of a standard deviation (Kyllo & Landers, 1995).

Among musicians, Miksza (2011) found a significant positive relationship between strategic practice behaviors such as slowing, chaining, and the use of a metronome and performance achievement scores, which suggests practicing in a more strategic and goal-directed manner can attribute to higher performance achievement scores. In a similar study, Miksza and Tan (2015) found that students who reported to exhibit grit and reflection in practice settings also reported feeling more efficient, more likely to engage in flow, and having greater self-efficacy for self-regulation. In addition, grit was found to be the strongest predictor of effective practice routines. Therefore, the authors suggest that depending on the efficiency of practice, grit can determine to some degree the ability to complete short-term tasks and persevere toward long-term goals (Miksza & Tan, 2015).

### **Additional Implemented Psychological Theories**

#### **Self-Efficacy, Mindset, Self-Attribution, and Optimism**

**Self-efficacy and mindset.** The Self-Efficacy theory (Bandura, 1997) is associated with the degree to which the student believes in their own ability and capacity to achieve certain goals. An example of this theory put to practice is through the work of Carol Dweck (1986, 2007, 2010, 2014). In her studies of mindsets, motivation, and effects of praise, Dweck found that depending on how people perceive themselves affects their performance even in daily activities. For example, children with fixed mindsets are more likely to give up and lose motivation to continue on a specific task when faced with

failure than those who maintain a growth mindset and use failure as a tool to try and figure out how to improve on the next task (Dweck, 2007). Being of the fixed mindset greatly affects individual perceptions of Self-Efficacy because the student (or person) no longer finds that they are capable of performing a specific task because they failed. Perceived failure, in this case, has the potential to evoke feelings of anxiety. Training students to become aware of the positive effects of operating within the growth mindset can increase motivation to the task and decrease feelings of anxiety brought on by the overall fear of failure (Dweck, 2007). Similarly, Atkinson and Litwin (1960) suggest that the individual's motive to achieve success is stronger than the motive to avoid failure. However, sometimes this can be reversed where the individual's motive to avoid failure is stronger than the motive to achieve success, resulting in negative affect.

O'Neill and Sloboda (1997) investigated the extent of post-failure confidence influencing the recovery from failure in children during an achievement situation involving music. Participants were given a Melodic Direction Test followed by an experimental music test containing three conditions: success, failure, and post-failure. Participants in the success condition were given 10 practice melodies to ensure they would succeed in the test. In the practice stage, incorrect responses were corrected and replayed for the participant if they experienced difficulties. The success and post-failure conditions contained four five-note melodic patterns, and the failure condition contained a random ordering of the same four melodic patterns and six "ambiguous" melodies making it only possible for the participants to correctly identify less than half of the melodies. After the success and post-failure conditions, the participants were given positive feedback such as "well done, you passed." In the failure condition, the

participants were given negative feedback such as “I’m sorry, you didn’t pass this time.” In the success and failure conditions, the children were then asked how well they thought they did in comparison to the other children and how confident they were in their ability to perform a similar test in the future.

The results of this study found that over half of the participants in the failure condition showed a decline in their performance on a second test (O’Neill & Sloboda, 1997). The other participants either remained the same or improved. Participants who reported low-confidence to do better on a second test after experiencing failure experienced decline in performance on a second test; in contrast to the participants who reported high-confidence in completing a second test after experiencing failure. These results suggest that overall test performance is influenced not only by cognitive skill level, but also by behavioral states during testing.

**Self-attribution.** Similar to Bandura’s Self-Efficacy Theory and Dweck’s Mindset Theory, the Self-Attribution Theory is the process of seeking to provide explanations for unexpected outcomes by making attributions of probable causes to determine motivational consequences. The Self-Attribution Theory stemmed from the original work of Gestalt psychologist, Fritz Heider, which would later help formulate the beginnings of Social Cognitive Theory. According to Heider (1958), behavioral perceptions are a function of how observers make attributions for the causes of behavior which can be attributed either to the person who performed the behavior (internal cause) or to the environment in which the behavior occurred (external cause).

Typical attributions associated with the Self-Attribution Theory include effort (“I didn’t study enough”), ability (“I’m not good at the subject”), and luck (“The test

emphasized what I studied”) and are categorized within locus (cause is internal or external), stability (stable or unstable), or responsibility (whether the cause is controllable or not) (Arkin & Maruyama, 1979). Likewise, Asmus (1985, 1986) found that students often attribute success and failure in music due to internal reasons, such as ability and effort, 80% of the time. Additionally, students attribute a greater number of stable reasons for success in music while more external-unstable reasons (e.g., luck) are cited for failure in music (Asmus, 1986). Dweck (1986) further adds to this theory by differentiating Mastery-Oriented Attributions versus Learned Helplessness. Mastery-Oriented Attributional patterns tend to credit successes to ability and attribute failure to factors that can be changed or controlled such as insufficient effort or a very difficult task. However, the Mastery-Oriented individual takes industrious and persistent approaches to learning whether they succeed or fail at a task. In contrast, individuals with Learned Helplessness attribute failures to ability rather than successes, and when they do succeed, they conclude that external factors such as luck are responsible for the success of the task. Additionally, Learned Helplessness patterns influence the individual to believe that ability is fixed and cannot be improved by trying hard (Dweck, 1986).

**The power of optimism.** Practicing Optimism, like Dweck’s Mindset, has the power to transform perceived self-confidence and create change within one’s life (Teodoro, 2016). Diener and Diener (1995) found self-esteem, optimism, and life satisfaction to all be highly and positively correlated with one another. Self-esteem, life satisfaction, and dispositional optimism were found to be core features of positivity (Caprara & Steca, 2005; Caprara, Fagnani, Alessandri, Steca, Gigantesco, & Cavalli Sforza, 2009; Caprara, Steca, Alessandri, Abela, & McWhinnie, 2010). Similar to the

Self-Efficacy and Self-Attribution theories, negative thinking in practice and performance rarely benefits the musician and usually ends up working against them in accordance to the Law of Attraction. According to studies on the Law of Attraction, focusing on positive or negative thoughts can bring about positive or negative results (Losier, 2007). Likewise, higher expectancies are important when people face a difficult task, whereas low expectancies of success are a liability in performing difficult tasks (Brown & Marshall, 2001; Sharot, 2012a, 2012b).

### **B.J. Fogg: Baby Steps and the Fogg Behavioral Model**

**Baby steps.** In 2011, behavioral psychologist B.J. Fogg created the “Tiny Habits Model” including the idea of Baby Steps. This idea stems from introducing a tiny new healthy habit to one’s life as the stepping stone to behavioral change. Therefore, small changes to daily routines can create large changes over time. Fogg suggests that an attempt at a wholesale lifestyle change frequently fails (e.g., a non-active individual attempting to go to the gym every day isn’t likely to have long-term success). However, if that same person formulates a strategy plan of baby steps (e.g., for the first week, take a ten-minute walk twice each week, and increase frequency and duration over the following weeks), they are more likely to reach their end goal of going to the gym every day once this new “tiny habit” is formed and later developed. Robbins (2017) also explains that physical movement can also encourage the brain to start to build new habits. Additionally, when a person engages in something they are not used to doing, it kick-starts the act of building new habits and erasing existing ones.

**The Fogg behavioral model.** According to Fogg (2009, 2016) in order for a person to perform a target behavior, they must be sufficiently motivated to perform the

behavior, have the ability to perform the behavior, and be triggered to perform the behavior. Additionally, these three factors must occur at the same time in order for the behavior to occur. For example, if a person needs to wake up for work the following day, they must have the motivation and ability to get out of bed. The trigger for this behavior could be the ringing of their alarm in the morning.

An additional idea from the Fogg Behavior model is “Find & Replace” where introducing simple and easy lifestyle modifications to a low motivation audience has the best chance of success. Fogg explains that focusing on the simplicity of a target behavior will increase the ability to execute it. Triggering a more simple behavior often leads to other desired behaviors, which leads into his idea of creating “Tiny Habits” (2011).

### **Defining Performance Anxiety**

An additional component that could affect the development of performance and achievement is disorder of anxiety itself. Anxiety is defined as a feeling of worry, nervousness, or unease, typically about an imminent event or something with an uncertain outcome (Beck & Emery, 1985). Although experiencing some amount of anxiety is a normal part of being human, for some, it can become debilitating. Symptoms are produced by activation of the body’s emergency system (as with any phobia) and can range from sweaty palms and over-perspiration to total immobility, fainting, and panic attacks. The changes observed by the brain when anxiety surfaces have an adaptive function in relation to threat, preparing us for an athletic response (Hodges & Sebald, 2011; LeBlanc, 2010; LeDoux, 2015; Wilson & Roland, 2002; Pert, 1999; Radocy & Boyle, 2003; Robertson & Eisensmith, 2010). Perception of a threatening event is created by overestimating the probability of a feared event, overestimating the severity of the



feared event, underestimating coping resources (what you can do about it), and underestimating rescue factors (what others can do to help you) (Wilson & Roland, 2002). Although it can be argued that a certain degree of anxiety actually helps with the quality of performance, more often than not, the experience to most students and musicians is quite unpleasant.

Bilder, Volavka, Lachman, and Grace (2004) explain that a gene called COMT (catechol-O-methyltransferase) indicates how some people are more anxious under threatening circumstances than others. This gene controls the production of an enzyme that removes dopamine from the prefrontal cortex and comes in two forms: slow-acting and fast-acting. Those who carry the slow-acting gene, in which takes a longer amount of time to remove dopamine, causes the person to stay in an anxious state longer. In contrast, those who carry the fast-acting gene, which absorbs excess dopamine much faster, causes the affected person to show little or no fear at all. Anxiety can directly affect musical and academic development when students are put in a trying situation in which they discover how to adapt within the situation that fits their performance needs.

Von der Embse and Witmer (2014) found a link between student anxiety and their overall performance on high-stakes testing. It has become more prominent for school funding to be based on overall student testing performance rather than mastery experiences. With the No Child Left Behind Act of 2001, schools were expected to demonstrate that all students met sufficient academic progress from year to year through high-stakes standardized testing. Schools that did not demonstrate progress ran the risk of school restructuring including funding availability. With such perceived weight of achievement and repercussions from performing poorly, Von der Embse and Witmer

(2014) examined if there was a relationship between student anxiety about high-stakes testing and their overall testing performance. Participants included 11<sup>th</sup> grade high school students from five high schools within different districts in Michigan. They were selected based on state regions, diverse student population, and willingness to participate. 11<sup>th</sup> graders were of primary focus due to the administering of college admissions testing (ACT/SAT) and the high-stakes behind these tests. The FRIEDBEN Test Anxiety Scale was selected to measure perceived social responses to anxiety as well as cognitive and physiological components as a pre-test measurement (Von der Embse & Witmer, 2014). This scale contains 23 questions in which students were to respond on a 6-point scale based on derogation, cognitive obstruction, tenseness, and overall feelings of test anxiety. Data from post-testing were then collected for comparison. Results show that overall test anxiety was a significant predictor of test performance when controlling for other expected predictors of test performance, including school performance as measured by grade point average. Von der Embse and Witmer (2014) conclude that although there was a relationship between test anxiety and actual test performance, there is still a great amount of research to be done on this subject including how high-stakes tests would be best administered and what interventions can be provided to aide students who suffer from test anxiety, especially with high-stakes testing.

Within a musical context, Cox and Kenardy (1993) assessed the role of situational factors involved in music performance anxiety. General situational factors can include situations such as our natural (non-musical) performance in front of others, fear of embarrassment or humiliation, and the judgment of others. Participants of this study included 32 music students (13 male, 19 female) recruited from the University of

Newcastle's Conservatory of Music, all of whom had studied at the Conservatory between 0.5 to 3.5 years. Each participant was given three questionnaires regarding anxiety (State-Trait Anxiety Inventory, the Performance Anxiety Questionnaire, and the Social Phobia and Anxiety Inventory) and were assessed by measuring self-reported anxiety in different performance settings, as well as each students' level of experience, degree of trait-anxiety, and degree of social phobia. The results found that performance setting was a critical factor in performance in general and on the influence of social phobia in particular. Additional findings show that a student's level of experience had no effect on the level of performance anxiety and students with higher trait anxiety experience higher performance anxiety levels compared to students with lower trait anxiety in all performance settings. There was also a close relationship found between performance anxiety and level of social phobia in the solo performance setting (although no such relationship exists in the practice setting) and there was some relationship between performance anxiety and level of social phobia in group performance (Cox & Kenardy, 1993). Interestingly, all 32 students indicated that they experience anxiety in the performance setting and 84% of students reported that they found anxiety to be detrimental to their performance. The authors concluded that although there was a significant correlation between performance setting and performance outcome, there are still implications for future research, treatment methods, and the understanding of the relationship between performance anxiety and social phobia.

Performance anxiety affects musicians of all skill levels and can range from acute distress to debilitation (Steptoe & Fidler, 1987; Van Kemenade, van Son, & van Heesch, 1995; Wesner, Noyes, & Davis, 1990). Ryan and Andrews (2009) found that among

semiprofessional choral members, performance anxiety is a common experience, with the conductor as one of the primary factors contributing to choral singers' experience of performance anxiety. The authors also determined that greater amounts of anxiety were reported for musicians performing in instrumental ensembles in contrast to choral ensembles. Likewise, solo performances were reported to be more anxiety inducing than ensemble experiences overall. Finally, participants with college music training reported less frequent episodes of performance anxiety than those without college music training, however, the episodes were still considered severe (Ryan & Andrews, 2009).

For many, the major source of anxiety stems from negative emotions regarding one's perceived musical abilities and performance (Kenny, 1993; Steptoe, 2001). The size of an audience is also a predictor of performance anxiety, particularly under a condition of a larger audience with recording equipment (LeBlanc, Jin, Obert, & Siivola, 1997). Performance anxiety has also been related to work stress among musicians (Steptoe, 2001). Additionally, Steptoe and Fidler (1987) found that performance anxiety was higher among music students in comparison to professional musicians. In young musicians, children with prior performing experience have experienced less anticipatory anxiety than those without prior experience (Boucher & Ryan, 2011). Additionally, performance location is considered a significant factor for young musician's anxiety, for example, children who were familiar with the performance environment experienced less anxiety than those who were not (Boucher & Ryan, 2011).

### **Self-Directed Learning and Efficiency**

Regarding self-directed learning, potential questions arise regarding accountability and tracking. However, as mentioned in Chapter I, self-directed learning

has been found to be beneficial to adult learners (Chou, 2012; Firat et al., 2016; Rager, 2009). Additionally, Firat et al. (2016) determined the following components must be set in place to better self-directed learning in adults:

1. It must be ensured that learners are able to keep track of their own improvement
2. Learners should be supported in terms of regular studying
3. Previous learning should be recalled
4. Learners should be enabled to add and remove interface components
5. Components that could be regulated by learners according to themselves should be included
6. Learners should be enabled to evaluate themselves
7. Self-learning should be promoted
8. Time management tools should be provided
9. Clues that could establish a relationship with real life should be presented
10. Image, video, and graphic support should be provided
11. Design variety should be ensured
12. Varied learning resources should be included
13. Components that enable learners to communicate should be included

Litzinger, Wise, and Lee (2005) found a significant relationship between engineering students' self-directed learning abilities and academic performance, specifically their GPA, within a traditional academic setting. Considering these findings, Chou (2012) explored the self-directed learning abilities of engineering students' in an online learning environment with focus specifically on the correlation between students' self-directed learning abilities and learning outcomes. Chou (2012) hypothesized that there would not be a significant relationship between engineering students' self-directed learning abilities and learning outcomes. Additionally, it was also assumed that students who score higher in a self-directed learning measurement might perform better in an online learning activity.

Participants of the study were comprised of forty-eight undergraduate engineering students from a university in Taiwan, all of whom were randomly selected from eight

different classes within the electronic engineering department. Prior to the start of the study, participant's self-directed learning abilities were measured based on the Self-Directed Learning Readiness Scale (SDLRS) consisting of 58 questions with 5-point Likert scales to measure eight different factors: openness to learning opportunities, self-concept as an effective learner, initiative and independence in learning, informed acceptance of responsibility for one's own learning, love of learning, creativity, positive orientation to the future, and ability to use basic study and problem-solving skills. The online learning activity created for this study was a science-based learning website regarding knowledge about the structure of the human body. Participants were given an hour to read all learning contents presented within the website. Upon completion of the hour session, participants received an online criterion test containing 60 multiple choice questions used to measure students' online learning performances based on what was learned in the online activity.

Results indicated a significant positive relationship between SDLRS scores and the criterion test, rejecting the initial hypothesis because findings support that engineering students' self-directed learning abilities do have a significant relationship to online learning performances. Chou further explains that participants who scored higher on the SDLRS performed better on the criterion test. Furthermore, these results suggest that students who are highly motivated (or more inclined) to participate in self-directed learning have higher chances of performing better on testing assessments, whether it be administered in a traditional or online environment (Chou, 2012).

## Research Questions

The theories used within Sports Performance Psychology can be applied to the musician within the development of the Music Performance Psychology subdiscipline. Because the Music Performance Psychology subdiscipline is still developing, it is important to explore the theories outlined above within a musical performance context to determine if their application would help the musician work towards musical peak performance. With the use of the *Maslow for Musicians* program as a tool, the following questions will be asked:

- Q1 Is there a connection between a performer's mindset and the outcome of their perceived performance, execution, and connection to the music? Specifically, how are confidence, emotional/mental fulfillment, musical experience, beliefs about personal musical abilities, and optimism ratings affected by a performer's mindset?
- Q2 If a performer is introduced to an online protocol for the self-management of psychological needs before starting their musical practice or performance session, does it make an immediate and measurable perceived improvement to the performer's musical productivity including engagement in flow and overall musical experience?
- Q3 Could this program become a useful source to musicians to help overcome performance anxiety and promote musical self-actualization?

## CHAPTER III

### METHOD

This chapter provides a description of the study, information about the study design, setting, population, recruitment, instrumentation, data collection, and data analysis procedures.

#### **Participants**

Participants for this study comprised twenty-five college-aged adult students (over the age of eighteen) including both undergraduate and graduate music students at the University of Northern Colorado (UNC). The total population consisted of twenty female and five male participants (mean age of 21.48 years). Among the participants who participated in this study, twenty-two participants (88%) were undergraduates and three participants (12%) were graduate students. Twelve participants (48%) identified that they were Music Performance majors (vocal, conducting, instrumental), five participants (25%) identified as Music Education majors, and eight participants (32%) identified that they were not music majors but did participate in an auditioned choral ensemble. Furthermore, nineteen participants identified as vocalists and six participants identified as instrumentalists (one clarinetist, two guitarists, and three pianists).

Participants were recruited through verbal advertisement in UNC music classes, flyers posted around the music building, and by email advertisements sent out via the School of Music email. All students who responded with interest in these



inquiries were asked to attend a short informal meeting to discuss procedure and materials. During this meeting, students were given the IRB-approved (Appendix B) Consent Form for Human Participants in Research (see Appendix C) and informed about the nature of this study. This included a provided link to the interactive *Maslow for Musicians* program (<http://maslowformusicians.wixsite.com/music>) and further instructions on how to use the program as a short-term goal tracker as they go about their normal practice and music lesson schedule, and instructions on how to log their survey answers via web link. For those students interested in participating in the study who could not attend the original meeting, they were asked to set up an individual one-on-one meeting with me to receive the materials handed out in the initial meeting and training on how to use the program. Although thirty students attended the initial meeting or set up individual one-on-one meetings, only twenty-five participants ultimately consented to see this study through. The main reason to not continue with the study as indicated by the five participants was due to the time commitment that would need to be dedicated to the five-week intervention. The study began during the first week in October, which was also the week of mid-term exams at the University of Northern Colorado and ended late in the Fall semester. Due to this, the five participants indicated that the amount of time that would need to be dedicated to the study would be too great for their individual work loads due to the timing within the semester.

## Instruments

### The Program

The main instrument used in this study was a self-directed interactive online program that I developed entitled *Maslow for Musicians* (see Appendix D). *Maslow for Musicians* was built upon the foundations laid out by Abraham Maslow in 1943, but it was customized to fit the specific needs of the musician. This program guides the participant through the *Hierarchy* one level at a time, working their way up to musical self-actualization.

*Maslow for Musicians* works as a goal tracker, similar to how an exercise-tracking device such as a Fitbit works for fitness goals. The goals were framed to create the optimal performance environment, with primary aims being an ability to make music freely and confidently and to have a resource for achieving peak performance experiences more frequently. Like Fitbit, the more the user is involved in the use of this resource, the greater the reward. For example, some programs that link with Fitbit offer challenges for the user to walk a certain amount of steps. However, these steps also create a learning experience for the user as it takes you on a virtual walking tour of the world. Using this service, users are able to track their steps through step-based challenges that correlate to the distance of virtually walking to world-famous landmarks, for example, from the Colosseum to the Vatican in Rome. Similarly, Fitbit is a motivational tool that keeps users accountable by helping them seek obtainable fitness goals, as the users are rewarded when goals are achieved (for example, earning “badges” as levels are unlocked). *Maslow for Musicians* operates on a similar principle.

This program was designed to be used by musicians of all levels from beginner to professional. In addition, it can also be used continuously on a daily basis or for short-term goals such as an upcoming performance. The resource itself is very flexible and can be reformulated to fit the current needs of the performer. The program is, at present (at the time of this study), an interactive website. For the purpose of this study, the website program contains specific needs of the musician for optimum physiological and musical functioning based loosely on the needs as initially determined by Maslow (1943).

When using the program, participants are first directed to a login screen where they enter the site. Participation engagement was tracked during the duration of the study through the use of analytics to determine how long each participant remained in the program and the amount of actual time they used it. Once a login is created, the user is directed to the homepage (see Appendix D) in which describes Maslow's Hierarchy theory, how this theory was implemented to create the *Maslow for Musicians* program, and instructions on how to use it. At the top of the page, a navigation bar can be found comprised of each level of the Hierarchy. It is here where users are able to advance from one level to another once the previous level has been completed.

As a goal tracker, the program focuses on smaller goals of completion which are set within each level to work up to the peak performance goal. Progress can be tracked as the user checks boxes within each level of the program when a need is fulfilled (e.g., drinking 8 glasses of water within the Physiological Level, or identifying a positive relationship between student and studio instructor within the Love and Belonging Level). Once all needs on the checklist for that particular level are fulfilled, the user selects the "Done!" button located at the bottom of the checklist (see Appendix D) and is instructed

to proceed to the next level, therefore, creating a new goal to work towards. Further resources (such as exercises and “how-to” guides) are provided as needed. Users are unable to progress to the next level unless the checklist on each level is completed. Once a level’s checklist is completed, the next level is unlocked automatically and the user may continue on to the next level. Additionally, each level has a motivational video related to the level’s subject matter intended to keep the user engaged. For example, Level IV: Esteem displays the motivational video, “Unbroken,” courtesy of Mateusz M on YouTube providing encouraging rhetoric on resilience, self-efficacy, and grit (see Appendix D).

It is important to note that, as stated in Maslow’s original *Hierarchy* theory, the model works from the bottom (Physiological) to the top (Self-Actualization). This process embodies the idea of working on oneself from the outside-in in order to function optimally. Therefore, the *Maslow for Musicians* program has the user start at the bottom level (Physiological) and guides them to move one level at a time up to Self-Actualization (Level 5).

It is entirely possible for users to not reach Self-Actualization right away; however, it is important to remember that using the *Hierarchy* is a process that progresses over time. As mentioned in the Literature Review, Maslow only believed that 2% of people reached the stage of Self-Actualization (Maslow, 1970). However, Maslow also believed that music could be the key to achieving Self-Actualization. In fact, Maslow believed music to be the optimal medium for achieving peak experiences (Maslow, 1962). He believed that music satisfies higher level of human needs, which was later taken into account when Bennett Reimer (1989) designed his own theory of music

appreciation (Piragasam, Majid, & Jelas, 2013). Additionally, a study by Zarate and Zatorre (2008) found that peak experiences in vocalists triggered by music often occurs and is described as something spiritual by the musicians themselves.

Self-Actualization (as it is used in this program) is to be thought of as Musical Self-Actualization. Once a user is Self-Actualized, it is possible for them to not complete the *Hierarchy* every day in its entirety. Rather, users are given the resources needed to be able to reach the highest level. Ultimately, however, it is up to the individual on how far they are motivated to progress on a particular day. In other words, to Self-Actualize is not something that is achieved and ends right at that moment—progress itself changes and adapts, and the *Hierarchy* helps the user work towards defining and achieving the “next bar” that is set in place.

### **Additional Instruments Used**

For the purposes of this study, participants were asked to practice repertoire as assigned by their studio professor and focus on three self-chosen music sessions (practice or lesson) per week over the course of five weeks while using the *Maslow for Musicians* program in order to submit corresponding surveys regarding confidence and musical progress. Prior to their first chosen practice session, each participant was given The Positivity Scale (Caprara et al., 2012; see Appendix E) measuring personal optimism, and the Performance Anxiety Inventory (Nagel, Himle, & Papsdorf, 1981, 1989; see Appendix F). All scores were recorded via web link and sent directly to the primary investigator. Additionally, each participant received the Musical Abilities Beliefs Assessment (author-created), an assessment of current perceived musical skills containing 5-point Likert scales on different musical beliefs on confidence, self-efficacy,

self-satisfaction, and musicianship (strongly disagree—strongly agree; see Appendix G). At the end of the study, all participants were given The Positivity Scale (Caprara et al., 2012) and the Performance Anxiety Inventory (Nagel, Himle, & Papsdorf, 1981, 1989), and Musical Abilities Beliefs Assessment once again, in addition to the Measurement of Self-Actualization Index (Jones & Crandall, 1986; see Appendix H). All scales were given online via Qualtrics for convenience of the participant.

**The positivity scale (Caprara et al., 2012).** The Positivity Scale (P-scale) is an eight-question scale rated on 5-point Likert scales based on items related to self-esteem, life satisfaction, and optimism combined into a measurement of positivity (referred to as POS). Scores range between a minimum of 8 and a maximum of 40. In order to solidify design and validity, the scale was used in a series of five studies (Caprara et al., 2012). Through these five studies, Caprara et al. (2012) found high correlations between POS and factors of self-esteem, life satisfaction, and optimism, as well as negative correlations between POS, negative affect, and depression in Italian adults. They argue that these findings further attest to the construct validity of the scale. Additional elements that support the validity of P-scale derive from its positive correlations with extraversion, agreeableness, conscientiousness, emotional stability, and openness (Caprara et al., 2012). Similar findings were supported in two studies among Chinese adults and early adolescents concluding high-positive correlations between P-scale scores and measures of self-esteem, optimism, and life satisfaction, and moderate-negative correlations between P-scale scores and the measures of negative affect and loneliness (Tian, Zhang, & Huebner, 2018).

Likewise, Borsa, Damásio, Souza, Koller, and Caprara (2015) found moderate correlations between POS and mental-health, subjective happiness, and life-satisfaction as well as slightly significant effects found between POS and occupational status and marital status. Borsa et al. (2015) argue that POS appears to be more closely related to personal dispositions than to sociodemographic aspects such as age, level of education, and SES.

**Performance anxiety inventory (PAI; Nagel, Himle, & Papsdorf, 1981, 1989).**

The Performance Anxiety Inventory (PAI) is a 20-item questionnaire based on the three-factor model of anxiety (somatic, cognitive, and behavioral) in which participants are given 20 questions to rate on a 4-point scale (almost never, sometimes, often, and almost always). Scores are added together, with higher scores indicating greater Music Performance Anxiety (MPA), and a score of 39 or less suggests the respondent has few problems with performance anxiety (Nagel, Himle, & Papsdorf, 1989). In a study of 33 musicians, Hoffman and Hanrahan (2012) found there was a significant reduction on the PAI for participants in the treatment group after a three-week learning cognitive and imagery strategy intervention in comparison to the wait-list control group. Additionally, multiple studies have used the PAI as an instrument to assess performance anxiety (Chang, 2001; Deen, 1999; Smith & Rickard, 2004; Stanton, 1994).

**Measurement of self-actualization index (SAS; Jones & Crandall, 1986).** The

Measurement of Self-Actualization Index (SAS) is a 15-item index using a 4-point Likert-type scale using standard and reverse scoring methods (see Appendix H). According to Jones and Crandall (1986), agreement with items 1, 3, 4, 7, 10, 12, and 15 are scored as Self-Actualizing and disagreement with the remaining items are also scored

as Self-Actualizing. Each Self-Actualizing response receives four points, decreasing down to one point for a non-Self-Actualizing choice (Jones & Crandall, 1986). The score range is between 15 and 60 and the higher the score, the more likelihood that a person is considered to be Self-Actualized.

This measurement's validity was tested by correlating the index with the following instruments: Eysenck's Personality Inventory (EPI; Eysenck & Eysenck, 1968), The Rational Behavior Inventory (RBI; Whiteman & Shorkey, 1973), Rosenberg's Self-Esteem Scale (Rosenberg, 1965), and the Personal Orientation Inventory (POI; Shostrom, 1980). Results indicated significant positive correlations with a total score on the POI, significant correlations with self-esteem and the measure of rational behavior and beliefs (Rosenberg; RBI), and a significant negative correlation with neuroticism and a positive correlation with extraversion as measured by the EPI (Jones & Crandall, 1986).

Many studies across numerous disciplines have used this index to assess Self-Actualization. Frana (2013) found that participation in the cognitive behavioral program, Freedom-101, increased measures of Self-Actualization pre-post-test in prison inmates using SAS as an assessment instrument. Likewise, Coppola and Spector (2009) used SAS as a measurement instrument when posing a Natural Stress Relief Meditation (a mental technique practiced for 15 minutes twice a day thought to reduce stress and anxiety by inducing a physiological state of deep rest) intervention. Results from this study found a significant increase of Self-Actualization post-intervention using this measurement.

**Musical abilities beliefs assessment.** The Musical Abilities Beliefs Assessment (Appendix G) is a self-created assessment measuring self-reports of current perceived musical skills containing twelve 5-point Likert scales on different musical beliefs on



confidence, self-efficacy, self-satisfaction, and musicianship to be rated from strongly disagree to strongly agree.

## **Procedures**

### **Design**

The structure of this study was formed around an explanatory mixed methods design through the use of an intervention (Creswell & Clark, 2011). According to Creswell and Clark (2011), the explanatory design procedure is one of the most straightforward mixed methods designs built upon a two-phase process. In the first phase of data collection, a quantitative strand is designed and implemented in order to collect and analyze quantitative data. The second phase of an explanatory mixed methods design includes deciding which quantitative data needs further explanation. At this time, the researcher develops a qualitative strand of data collection procedures and data is collected and analyzed in a qualitative fashion. Creswell and Clark (2011) clarify that the interpretation of these data takes into account the extent to which the qualitative results explain and add insight to the quantitative results. They also provide further information about the strengths of the explanatory design, including the fact that it begins with strong quantitative orientation and that the two-phase structure makes data collection and analysis straightforward to implement since data is collected in separate phases one at a time (Creswell & Clark, 2011).

Within this design, preliminary quantitative data were collected (pre-test) followed by the five-week intervention using the *Maslow for Musicians* program and post-test surveys after the conclusion of the intervention. Once this stage was completed, a second

stage of qualitative data were collected through conducting interviews with the participants regarding their reflections on the program and musical achievements post-intervention.

As mentioned previously, participants were asked to practice the repertoire as assigned by their studio professor. The intervention was to use the *Maslow for Musicians* program for five weeks via the online website [www.maslowformusicians.wix.com/music](http://www.maslowformusicians.wix.com/music) (with engagement time determined by the participant) and to submit survey answers three times a week (intended to reflect upon their perception of the program in correspondence to their actual perceived performance within their practice session/lesson) immediately after a music session (practice/performance) on the day of their choosing. Participants were asked to spend *at least* 10 minutes within the program prior to each chosen practice session or lesson. This being said, participants who did not engage within the program for at least 10 minutes prior had a follow-up meeting with me to determine if they were still interested in completing the study; non-compliant participants were respectfully dropped from data collection but were invited to continue using the program without submitting the required surveys.

Participants were also informed that the program was to be used prior to three practice session/lessons of their choice to become consciously aware of any unfulfilled needs that should be met beforehand to ensure optimal practice conditions. As mentioned previously, in order to help ensure consistent participation for this program of self-directed learning, participants were asked to create a login username and password on the website, and engagement was tracked per user via analytic coding including login time, engagement duration, and submitted responses per level completed.

## Data Collection Procedures

As mentioned in the “Instruments” section, prior to the start of the study, each participant was given The Positivity Scale (Caprara et al., 2012) to measure personal optimism, the Performance Anxiety Inventory (Nagel, Himle, & Papsdorf, 1981, 1989), and a pre-assessment of their current perceived musical skills evaluating confidence, self-efficacy, self-satisfaction, and musicianship.

The intervention implements the *Maslow for Musicians* program prior to the participant’s three chosen practice session/lessons each week, building to the next level while dedicating concentration on one level per week. Week One would start with Level I: Physiological, Week Two built to Level II: Safety, Week Three built up to Level III: Love and Belongingness, Week Four built up to Level IV: Esteem, and finally Week Five built up to Level V: Self-Actualization. Prior to each chosen session, participants were asked to login to their account and begin on Level I: Physiological and fulfill the needs on each level’s checklist before beginning their practice with the goal of reaching the level of the week. Participants who did not fully complete a level’s checklist were not prompted to progress to the next level and would remain on that level until the checklist was complete. Once each week’s assigned levels were completed, participants would move on to their chosen practice session/lesson. Surveys were sent out via Qualtrics three times a week on Sunday, Wednesday, and Friday to be immediately filled out post-practice/lesson of their choice. Reminder emails were sent to each participant a day before each survey due date reminding them to submit the survey. Participants who did not submit a survey were granted a day grace period, and once the grace period had lapsed the participant were respectfully dropped from the data collection but were

encouraged to continue using the program if desired. Once participants completed their chosen practice session or lesson, participants answered the short survey online which included the following questions:

- 1) What is your name?
- 2) What is your primary instrument?
- 3) Prior to this survey, which type of musical session did you complete to evaluate here? (practice session/lesson)
- 4) How many minutes did you practice in this session/lesson?
- 5) How well did you feel this practice session/lesson went?
  - This session went really well
  - This session was pretty good, but it needed a little more work
  - This session was average; I wasn't completely satisfied, nor completely unsatisfied
  - This session was not so good, it needed more work
  - This session did not go well
- 6) How confident do you feel about your performance post-practice session/lesson?
  - Very confident
  - Fairly confident
  - Mixed feelings
  - Not as confident as I would like to be
  - I don't feel confident about this session
- 7) On a scale of 1 ("negative") to 5 ("positive"), how would you rate your overall experience within this session?
- 8) During this session, did you find yourself becoming "immersed within the music?" (Yes/No)
- 9) On a scale of 1 ("very frustrated") to 5 ("not frustrated at all"), how frustrated did you feel about any perceived mistakes that came along during this practice session?
- 10) I felt emotionally and mentally fulfilled with my performance overall during this practice session/lesson. (Yes/No)
- 11) Did you complete the Hierarchy up to this week's level (e.g., Level 2: Safety)? (The particular level will be indicated)
- 12) If not, what level on the Hierarchy did you complete today prior to your practice session/lesson? (Select One) (A list of the five levels will be provided to select from)
- 13) How long did you spend working within the program prior to your practice session/lesson? (Type Answer)

Additionally, on week five, participants were also asked the following:

- 14) Post-training within Maslow for Musicians, do you feel that this program helped strengthen your practice routine and overall feelings of your personal musicianship? (Yes/No)
- 15) Overall, I am happy with my performance progress over the past five weeks. (Yes/No)

After the week five surveys were completed, all participants were once again given the Positivity Scale (Caprara et al., 2012) the Performance Anxiety Inventory (Nagel, Himle, & Papsdorf, 1981, 1989), and the Musical Abilities Beliefs Assessment, in addition to the Measurement of Self-Actualization Index (Jones & Crandall, 1986).

Following the quantitative data collection outlined above, personal interviews were conducted with each participant regarding their individual reflections on musical growth, musical habits, and how the program could have contributed to these outcomes over the past five weeks. Similar to the pre-assessment of perceived musical skills evaluating confidence, self-efficacy, self-satisfaction, and musicianship sent prior to the study, these questions were asked again during the interview in order for participants to elaborate on their answers (see Appendix I). The qualitative aspect of the study brought forth the individualistic perspective on the program needed to understand the effect it had on different people. These data also brought insight to individual motivational factors that the program would need to employ for it to best assist its users possessing different perspectives, as motivation is subjective from person to person. Each interview lasted at most 14 minutes per participant ( $M = 10:08$  minutes) and was recorded for transcription and analysis purposes.

## Data Analysis Procedures

Once all data were collected, the following comparison groups were formed from the results to be analyzed using descriptive statistic procedures to determine change from pre-intervention to post-intervention:

- Perceived Weekly Confidence Ratings (Week 1–Week 5)
- Engagement in Flow (Week 1–Week 5)
- Perceived Emotional and Mental Fulfillment (Week 1–Week 5)
- Overall Experience Rating (Week 1–Week 5)
- Personal Optimism P-scores (pre-test/post-test)
- Performance Anxiety Inventory Scores (pre-test/post-test)
- Perception of Musical Abilities (pre-test/post-test)
- Self-Actualization Index Scores (post-test)

Once the quantitative data were analyzed, individual participant interviews were held to collect qualitative data to further explain quantitative findings. Following completion, interviews were transcribed and read thoroughly to generate preliminary trends found within participant responses. Using the preliminary trends found in the initial read-through, codes were manually formulated, and the following qualitative data went through content and thematic analyses using NVivo software based on the interviews conducted to formally code patterns and thematic material (Creswell & Clark, 2011):

- Self-Actualization self-reporting
- Self-reports regarding changes in confidence
- If using the *Maslow for Musicians* program helped make music more meaningful to the participant
- Changes in perceived musical fulfillment and/or satisfaction following the intervention
- Changes in perceived overall musical progress following the intervention
- Level completed in the Hierarchy compared to overall experience rating in practice session/lesson and perceived musical fulfillment and performance progress

## CHAPTER IV

### RESULTS

Quantitative results from this study showed overall improvement from pre-intervention to post-intervention. Similarly, data collected during individual interviews supported these results. Due to small population size, quantitative results are discussed using descriptive statistical analyses. However, for future research implications, data were also analyzed using inferential statistics such as repeated measures ANOVA and paired t-tests in an exploratory sense for preliminary data analyses only.

In order to properly conduct the repeated measures ANOVA, three assumptions must be made: variables are independent and identically distributed, normality (i.e., the variables follow a multivariate normal distribution in the population), and sphericity (i.e., the variances of all different scores among the variables must be equal in population). In both cases that the repeated measures ANOVA was used (e.g., Confidence and Overall Experience Ratings), all assumptions were properly assumed. Likewise, to conduct a paired t-test, four assumptions must be made: the dependent variable must be continuous (i.e., an interval or ratio), the observations are independent of one another, the dependent variable should be approximately normally distributed, and the dependent variable should not contain any outliers. The four assumptions for the paired t-test were also properly assumed for all pre-test/post-test measurements (e.g., Personal Optimism P-scores, Performance Anxiety Inventory Scores, and Perception of Musical Abilities Scores).

## Quantitative Data Analysis

### Perceived Weekly Confidence Ratings, Week 1 to Week 5

Participants were asked to rate how confident they felt about their performance following chosen weekly practice sessions from 1 (not confident at all) to 5 (very confident). For the purpose of this study, the participant's third evaluated practice session was analyzed for weekly consistency. Descriptive statistic results for confidence are listed in Table 1.

Table 1

*Self-Reported Weekly Confidence Ratings*

Week	<i>N</i>	Confidence Rating	
		<i>M</i>	<i>SD</i>
Week 1	25	3.28	1.1
Week 2	25	3.92	.81
Week 3	25	4.16	.62
Week 4	25	4.20	.41
Week 5	25	4.24	.92

*Note.* The maximum score is 5.

From Week 1 ( $M = 3.28$ ;  $SD = 1.1$ ) to Week 5 ( $M = 4.24$ ;  $SD = .925$ ), there was an increase in mean scores of .96. In Week 1, only 12 participants reported ratings of 4 (fairly confident) and 5 (very confident) with only three of the participants reporting a rating of 5 (very confident). However, on Week 5, 21 participants reported ratings of 4 (fairly confident) and 5 (very confident) with 12 participants reporting a rating of 5 (very confident). Although mean scores were seen to have increased overall from Week 1-



Week 5, the data showed the largest increase from Week 1-Week 3 (Love and Belonging) with a steady increase in mean score following Week 3 (see Figure 1).

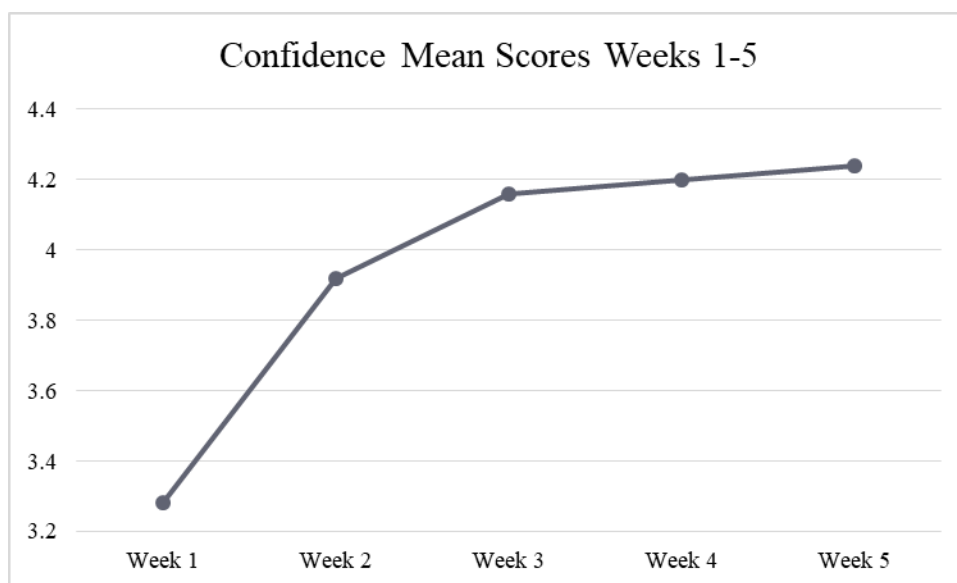


Figure 1. Self-reported confidence Week 1 to Week 5.

Given these data, I decided to run a repeated measures ANOVA to test possible statistical significance. However, it is important to note that due to the given sample size, interpretation and confidence regarding the results of the repeated measures ANOVA analysis should be read with caution as it is intended to only be an initial trial of analysis. Using G\*Power software to calculate proper sample size and power analysis, a repeated measures ANOVA measuring within factors would require a total sample size of 31 participants to be considered powerful enough at a statistical power of .95.

Results from the repeated measures ANOVA indicated significant overall differences over the five weeks,  $F(4, 96) = 6.76, p < .001, \eta_p^2 = .22$ . Post-hoc analysis revealed significant differences in Confidence scores between Week 1 and Week 5 ( $p =$

.026,  $p < .05$ ). Further significant differences were found between Week 1 and Week 3 ( $p = .012$ ,  $p < .05$ ), and between Week 1 and Week 4 ( $p = .007$ ,  $p < .05$ ). The mean difference between Week 1 and Week 2 was not statistically significant ( $p = .104$ ). All other comparisons between Weeks 2, 3, 4, and 5 were not deemed significant.

### **Self-Reported Engagement in Flow, Week 1 to Week 5**

Participants were also asked whether or not they felt they became immersed within the music during their chosen practice session (Yes/No). Because the data collected was nominal in nature, frequency statistical analysis was chosen to outline weekly differences in perceived engagement in Flow.

From the frequency analysis, Week 1 self-reports in engagement in Flow were almost split in half with 13 of participants reporting “Yes” (52%) and 12 participants reporting “No” (42%). Week 2 showed a large increase in “Yes” responses (17 participants, 68% of total participants) and decline in “No” responses (8 participants, 32% of total participants) in comparison to Week 1. Week 3 did not show a large difference in comparison to Week 2 with 72% of participants responding “Yes” (18 participants) and 28% of participants responding “No” (7 participants). Week 4 responses had another substantial increase with 84% (21 Yes responses) to 16% (4 No responses) in comparison to Week 3. And finally, Week 5 showed an increase to 88% (22 Yes responses) to 12% (3 No responses) in comparison to Week 4, which was not as substantial of a leap as seen from Week 1 to Week 2 and Week 3 to Week 4. However, there was a definitive increase overall when comparing Week 1 to Week 5 (Figure 2).

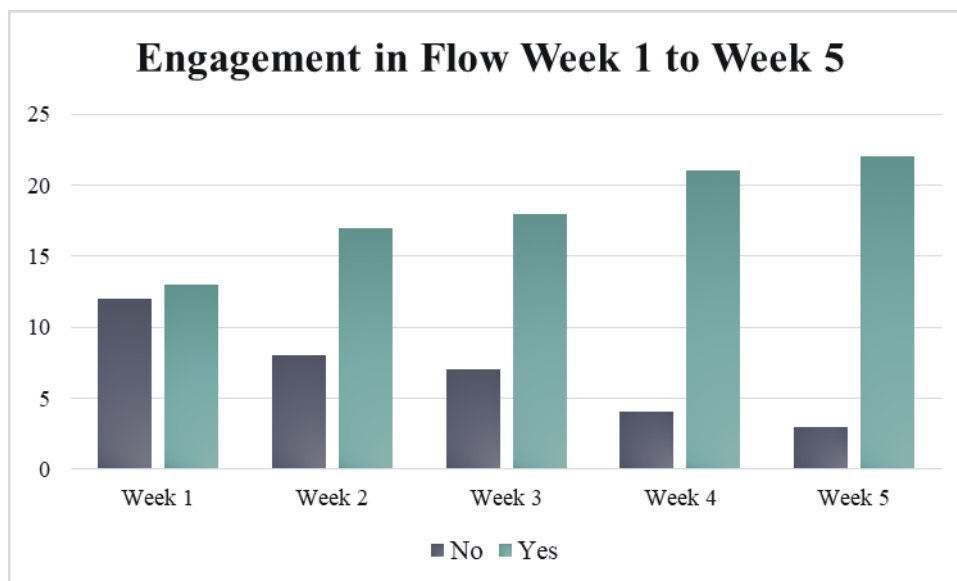


Figure 2. Self-reported engagement in Flow Week 1 to Week 5.

### Perceived Emotional and Mental Fulfillment, Week 1 to Week 5

Another factor measured was perceived emotional and mental fulfillment in which participants were asked whether or not they felt emotionally and mentally fulfilled with their performance overall during the chosen practice session (Yes/No). Similar to the measurement of Flow, frequency statistical analysis was chosen to outline weekly differences in perceived emotional and mental fulfillment due to the nominal nature of the data.

From the frequency analysis, the majority of participants said they did not feel emotionally and mentally fulfilled during their practice session during Week 1 with 15 of participants reporting “No” (60%) and 10 participants reporting “Yes” (40%). Beginning in Week 2, there was an increase of 12% in “Yes” responses (13 participants, 52% of total participants) and a decrease of 12% in “No” responses (12 participants, 48% of total

participants) in comparison to Week 1. Week 3 showed a similar trend with another 12% increase in “Yes” responses (16 participants, 64% of total participants) and 12% decrease in “No” responses (9 participants, 36% of total participants). Week 4 continued to have an increase in “Yes” responses (18 participants, 72% of total participants) and decrease in “No” responses (7 participants, 28% of total participants), however the difference was smaller than what was seen in Week 1 through Week 3 with of the increase and decline of 10%. Similarly, Week 5 showed a difference of 4% in increase and decline of “Yes” and “No” responses with 19 participants (76%) reporting that they felt emotionally and mentally fulfilled with their practice session and 6 participants (24%) reporting that they did not feel emotionally and mentally fulfilled by their practice session. However, there was a substantial increase overall when comparing Week 1 to Week 5 with an increase in “Yes” responses by 36% (Figure 3).

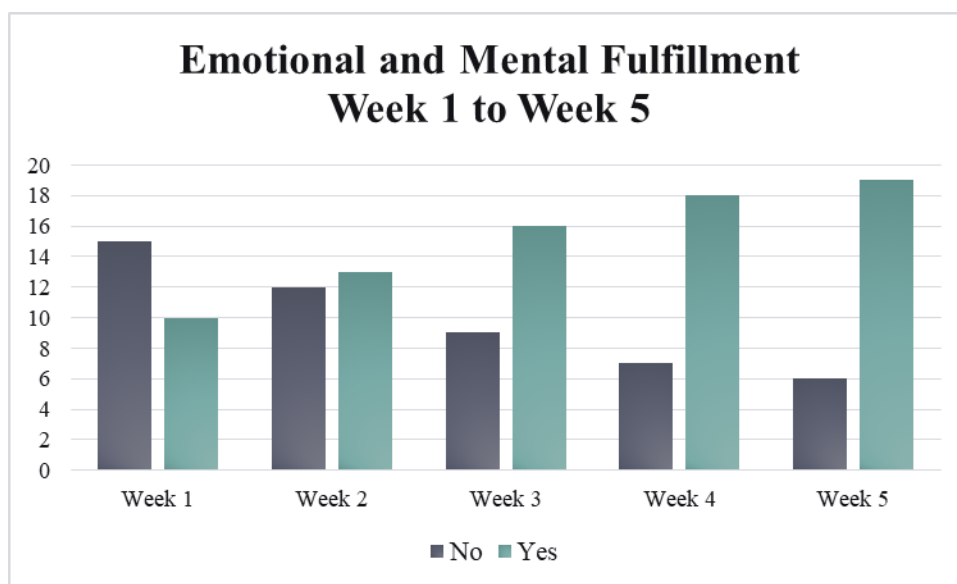


Figure 3. Self-reported emotional and mental fulfillment Week 1 to Week 5.

### Overall Experience Rating, Week 1 to Week 5

Participants were asked to rate how they felt about their overall performance experience following chosen weekly practice sessions from 1 (negative) to 5 (positive).

Descriptive statistics for overall experience rating can be found in Table 2.

Table 2

*Self-Reported Weekly Overall Experience Ratings*

Week	N	Experience Rating	
		M	SD
Week 1	25	3.72	.97
Week 2	25	4.04	.79
Week 3	25	4.12	.72
Week 4	25	4.16	.75
Week 5	25	4.56	.58

*Note.* The maximum score is 5.

From Week 1 ( $M = 3.72$ ;  $SD = .97$ ) to Week 5 ( $M = 4.56$ ;  $SD = .58$ ), there was an increase in mean scores of .84. In Week 1, only 15 participants reported ratings of 4 and 5 (positive) with only six of the participants reporting a rating of 5 (positive). However, on Week 5, 24 participants reported ratings of 4 and 5 (positive) with 15 participants reporting a rating of 5 (positive). Mean scores were seen to have increased overall from Week 1 to Week 5. However, unlike the findings from the Confidence measures, data showed a large increase in rating between Week 1 and Week 2 (Physiological to Safety) with a steady increase from Weeks 2 to 4 and the largest increase in ratings from Week 4 to Week 5 (Esteem to Self-Actualization) of .4 (see Figure 4). Overall, Week 1 ratings

were distributed evenly between the range of 2 and 5 with a majority of ratings falling between 3 and 4 ( $M = 3.72$ ), whereas by Week 5 all ratings were reported a 3 and above with a majority of ratings either being 4 or 5 with a rating of 5 being the most frequently rated ( $M = 4.56$ ).

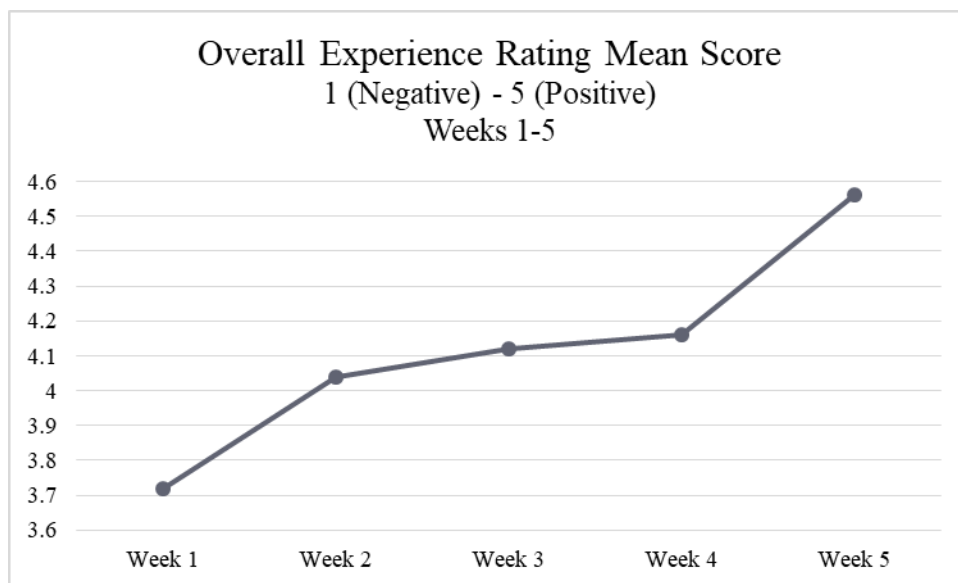


Figure 4. Self-reported overall experience rating Week 1 to Week 5.

Like the Confidence data, I decided to run a repeated measures ANOVA to test possible statistical significance. Again, it is important to note that due to the given sample size, interpretation and confidence regarding the results of the repeated measures ANOVA analysis should be read with caution as it is intended to only be an initial trial of analysis. Using G\*Power software to calculate proper sample size and power analysis, a repeated measures ANOVA measuring within factors would require a total sample size of 31 participants to be considered reliable at a statistical power of .95.

Results from the repeated measures ANOVA indicated significant overall differences over the five weeks,  $F(4, 96) = 6.14, p < .001, \eta_p^2 = .204$ . Post-hoc analyses revealed a statistically significant difference in Overall Experience scores between Week 1 and Week 5 ( $p = .006, p < .05$ ), and between Week 4 and Week 5 ( $p = .049, p < .05$ ). Even though there was a considerable increase in scores from Week 1 to Week 2, it was not found to be statistically significant ( $p = .175$ ). All other comparisons between Weeks 2, 3, 4, and 5 were also not deemed statistically significant.

### **Personal Optimism (P-score) from Pre-to Post-Intervention**

Moving from repeated testing on Week 1 through Week 5, the next sets of data collected were analyzed from pre-intervention to post-intervention. For Personal Optimism, participants were asked to rate items related to self-esteem, life satisfaction, and optimism combined into a measurement of positivity (referred to as POS) on 5-point Likert scales from The Positivity Scale (Caprara et al., 2012). Descriptive statistics for P-score can be found in Table 3.

Table 3

*The Positivity Scale (P-Scale) Scores Pre-intervention to Post-intervention*

	<i>N</i>	<i>P-Scale Score</i>	
		<i>M</i>	<i>SD</i>
PRE	25	29.6	5.04
POST	25	31.6	4.86

*Note.* The minimum score is 8 and the maximum score is 40.

P-scale scores showed a minimum score of 19 and a maximum score of 40 pre-intervention ( $M = 29.6$ ;  $SD = 5.04$ ), whereas a minimum score of 19 and a maximum score of 39 were reported ( $M = 31.6$ ;  $SD = 4.86$ ) resulting in an increase of mean scores by 2 points post-intervention. Like Confidence and Overall Experience Rating, I wanted to see how these data might be reflected regarding statistical significance. I decided to conduct t-tests for P-score, PAI scores, and Musical Beliefs scores to measure if there was a statistical significance between scores pre-intervention to post-intervention. As mentioned before with the repeated measures ANOVA analysis for Confidence and Overall Experience Rating, due to the given sample size, interpretation and confidence regarding the results of the paired t-test analysis should be read with caution as it is intended to only be an initial trial of analysis. Using G\*Power software to calculate proper sample size and power analysis, a paired t-test would require a total sample size of 54 participants to be considered reliable at a statistical power of .95. From the paired samples t-test, results indicate statistical significance in P-scores from pre-intervention to post-intervention,  $t(24) = -2.554$ ,  $p = .017$ .

### **Performance Anxiety Inventory (PAI) Scores from Pre- to Post-Intervention**

For the Performance Anxiety Inventory, participants were asked 20 questions on a 4-point scale (almost never, sometimes, often, and almost always) based on the three-factor model of anxiety (somatic, cognitive, and behavioral). In accordance to the formal procedure of this inventory, scores were added together with higher scores indicating greater Music Performance Anxiety (MPA), and a score of 39 or less suggests the



respondent has few problems with performance anxiety. Descriptive statistics for PAI scores can be found in Table 4.

Table 4

*Performance Anxiety Inventory (PAI) Scores Pre-intervention to Post-intervention*

	<i>N</i>	PAI Score	
		<i>M</i>	<i>SD</i>
PRE	25	43.48	10.8
POST	25	41.28	9.99

*Note.* The minimum score is 20 and the maximum score is 80.

PAI score results showed a minimum score of 27 and a maximum score of 74 pre-intervention ( $M = 43.48$ ;  $SD = 10.806$ ), whereas a minimum score of 28 and a maximum score of 67 were reported ( $M = 41.28$ ;  $SD = 9.99$ ) resulting in a decrease of mean scores by 2.2 points post-intervention meaning by post-intervention participants reported having fewer symptoms of performance anxiety. Looking at the maximum scores of pre-intervention (score of 74) in comparison to post-intervention (score of 67), data show a decrease of 7 points overall after using the *Maslow for Musicians* program. Even though mean scores show a slight decrease, participants scoring higher on the PAI pre-intervention reported a substantial decrease in symptoms, therefore narrowing the margin of scores.

To test for statistical significance, I decided to conduct a paired samples t-tests for PAI scores comparing pre-intervention to post-intervention. From the paired samples t-test, results indicate that there was not a statistical significance in PAI scores from pre-

intervention to post-intervention,  $t(24) = 1.201$ ,  $p = .241$ . As calculated previously in G\*Power, total sample size of 54 participants would be required to give a more accurate analysis of this measure when analyzed through a paired samples t-test.

### **Perception of Musical Abilities from Pre- to Post-Intervention**

For the self-created Musical Abilities Beliefs Assessment, participants were asked to rate their musical beliefs on confidence, self-efficacy, self-satisfaction, and musicianship on 5-point Likert scales ranging from strongly disagree to strongly agree. I used Cronbach's alpha to test for instrument reliability. Results for Cronbach's alpha will be between 0 and 1, and the closer the number is to 1 the more reliable the measure is considered to be. Since the result of this test was  $\alpha = .862$ , the Musical Abilities Beliefs Assessment can be considered sufficiently reliable. Descriptive statistics can be found in Table 5.

Table 5

*Musical Abilities Beliefs Assessment Scores Pre-intervention to Post-intervention*

		Score	
	<i>N</i>	<i>M</i>	<i>SD</i>
PRE	25	44.72	6.42
POST	25	47.76	6.05

*Note.* The minimum score is 12 and the maximum score is 60.

Results from Musical Abilities Beliefs Assessment scores showed a minimum score of 29 and a maximum score of 57 pre-intervention ( $M = 44.72$ ;  $SD = 6.42$ ), whereas

a minimum score of 27 and a maximum score of 58 were reported ( $M = 47.76$ ;  $SD = 6.05$ ) resulting in an increase of mean scores by 3.04 points post-intervention. In contrast to the results found for PAI, even though there was a slight increase in the maximum score, the mean score had a substantial increase from pre-intervention to post-intervention.

To test for statistical significance, I conducted a paired samples t-tests for Musical Abilities scores comparing pre-intervention to post-intervention. Results from the paired samples t-test indicate statistical significance in Musical Abilities scores from pre-intervention to post-intervention,  $t(24) = -2.244$ ,  $p = .034$ .

### **Self-Actualization Index (SAI) Scores Post-Intervention**

In addition to the P-score, PAI, and Musical Abilities tests, the Self-Actualization Index (SAI) was also administered post-intervention to determine how self-actualized participants were perceived to be after using the *Maslow for Musicians* program. Each participant was asked to rate 15 statements regarding personal beliefs about themselves on 4-point Likert-type scales (1 (disagree), 2 (somewhat disagree), 3 (somewhat agree), and 4 (agree)). As mentioned in the previous chapter, the SAI uses standard and reverse scoring methods. The range of scores includes a minimum score of 15 and a maximum score of 60, and the higher the total score, the more likelihood that a person is to be Self-Actualized. Because the data was collected only post-intervention, descriptive statistics and frequency were analyzed to determine average score and score groupings.

Results from the descriptive statistics indicate a minimum score of 38 and a maximum score of 49 ( $M = 43.2$ ;  $SD = 2.61$ ). Looking at the frequency analysis and considering that the SAI score range is between 15 and 60, a majority of participant

scores were closer to being self-actualized than not with a deficit of 11 points from the highest reported score of 49 to the highest possible score of 60 and 17 points from the reported mean of 43.2 to the highest possible score of 60. Likewise, the lowest reported score of 38 is 23 points from lowest possible score of 15 and 22 points from the highest possible score of 60 and is .5 point higher than the range median of 37.5. With these data, it can be seen that the spectrum of reported scores all fall above the score range median with a deficit of .5 from the lowest reported score. However, most participant scores fell between the score range of 41 and 47 with the top three most frequent scores being 43 (7 participants, or 28% of total participants), 45 (4 participants, or 16% of total participants), and 42 (3 participants, or 12% of total participants).

### **Qualitative Data Analysis**

Once all quantitative data were collected, individual interviews were conducted to help further explain the findings from the quantitative strand of this mixed-method study. Interviews lasted between 8 and 14 minutes ( $M = 10:08$  minutes) and were comprised of questions regarding the *Maslow for Musicians* program and personal reflection on confidence, musical fulfillment and progress, and performance changes from pre-intervention to post intervention (see Appendix I). Interviews were audio recorded and later transcribed.

After transcriptions were completed, they were entered into NVivo Coding Software to conduct thematic analysis to determine different reoccurring themes (and their frequency) that surfaced throughout the 25 transcripts. As an initial analysis, I ran the transcripts through a word frequency query of the top 50 most used commonly used words in interviewee responses (see Figure 5). The visual chosen for output

representation is a Word Cloud, where the size of the word represents the number of times a word is used. In other words, the bigger and more opaque the word is pictured within the Word Cloud, the more times it is used throughout the transcripts. Likewise, the smaller and more transparent the word is represented in the Word Cloud, the least amount of times it is used throughout the transcripts. For example, in Figure 20, the largest and most opaque word is the word “good,” which was used a total of 216 times throughout the 25 interviews. Whereas the smallest and most transparent word in the Word Cloud is the word “life,” which was used a total of 18 times overall. Other more frequently used words by interviewees included the words: know, feel, better, confident, realize, music, helped, practice, time, and program.



*Figure 5.* Transcript word frequency query word cloud from NVivo of the top 50 most commonly used words.

From the initial Word Frequency Query analysis and looking through the transcripts, I was able to determine emerging thematic coding patterns. Using NVivo as an organizational tool, each transcript was entered into the software to begin manually coding interview data based on participant answers to determine overarching themes and sub-themes across the 25 transcripts. First, initial thematic ideas were determined based on either direct or implied reference to the chosen thematic idea within participant answers from a sentence up to paragraph level. For example, if a participant indicated the idea that they had felt increased confidence, this information was then coded under the thematic idea of “confidence,” whether or not they directly referenced that specific word. In order to track emerging primary thematic ideas, information was to be organized into what are called “nodes,” or holding buckets for coded information in NVivo. From there, nodes are divided into a hierarchy of what are called “parent” and “child” nodes, with “parent” being the original node created and “child” being other nodes that create a more in-depth understanding or commentary on the “parent” node. For example, a parent node that I selected was “meaning” with “meaningful” and “more meaningful” being its children nodes.

From the interview data, 34 parent nodes and 24 child nodes were classified within their respected parental node equaling 58 nodes total and separated into five overarching themes: Perception of Self and Music Making, Confidence and Self-Esteem, Perception of Progress, Formulation of New Habits, and Perception of the Program (see Table 6). Due to the versatility of some of the parent nodes (e.g. “realize” and “satisfied”), there was some overlap of categories in which they could be applied. The 58

nodes classified then served as sub-themes in order to determine the five overarching themes.

Thematic analysis data were then transformed into a Hierarchy Chart comparing the number of coding references across the 58 nodes. Similar to the Word Cloud analysis, the more frequently a node is referenced the larger its box will be. However, the total number of references that organize them into the hierarchy refer to both direct references and their subsequent aggregate references (i.e. parent and child nodes). For example, the most referenced parent node was “confident” with 10 direct coding references with the children nodes of “more confident” (27 direct references), “confidence” (10 direct references), and “very confident” (5 direct references) equaling 52 aggregate references total from parent to child nodes. With “confident” being the most referenced node, additional nodes within the top 10 most frequently referenced also included: “realize” (29 direct, 40 aggregated), “mindset” (38 direct/aggregated), “aware” (12 direct, 34 aggregated), “progress” (18 direct, 33 aggregated), “helpful” (14 direct, 31 aggregated), “abilities” (31 direct/aggregated), “new habit” (30 direct/aggregated), “positive” (13 direct, 27 aggregated), and “improve” (4 direct, 27 aggregated).

Table 6

*NVivo Thematic Node Table*

Theme	Parent Node	Child Node
Perception of Self & Music Making	Abilities	Actualization  Improved  meaningful; more meaningful  positive thinking; positivity  realization more satisfied
	Actualize	
	Belong	
	Enjoy	
	Fulfilled	
	Happier	
	Improve	
	Increased	
	Meaning	
	Mindset	
	Musically	
	Positive	
	Potential	
Realize		
Satisfied		
Confidence & Self-Esteem	Believe	believe in myself comfortable confidence; more confident; very confident self-esteem; self-worth  improved  positive thinking; positivity  realization more satisfied
	Comfort	
	Confident	
	Esteem	
	Happier	
	Improve	
	Increased	
	Mindset	
	Positive	
	Potential	
	Realize	
	Satisfied	
	Perception of Progress	
Better		
Change		
Grow		
Happier		
Improve		
Increased		
Motivate		
Positive		
Potential		
Progress		
Satisfied		
Formulation of New Habits		Analyze
	Aware	
	Enjoy	
	Focus	
	Meaning	
	Mindset	
	Motivate	
	New habit	
	Reflect	
	Structure	
Perception of Program	Encourage	encouraging  help; helped  motivated; motivation
	Benefit	
	Enjoy	
	Focus	
	Helpful	
	Mindset	
	Motivate	
	Reflect	
	Structure	



In addition to thematic coding analysis, participant interviews also conveyed further explanations about the program itself including overall impressions, purpose, and perception of progress from pre-intervention to post-intervention. When asked about overall impressions of the program, one undergraduate Music Performance major reported, “I thought it was a very useful program. I think I definitely benefitted from the weekly sessions and evaluating myself.” An undergraduate Music Education major stated, “I found it really positive and it helped me to kind of reflect on what I’m doing, and how I can be more productive.”

Encouragement was also a theme disseminated across interview data regarding overall impressions of the *Maslow for Musicians* program. Interviewees reported that the nature of the program’s structure helped encourage elements such as greater musical appreciation and connection, positivity, and higher self-esteem and overall well-being. A second factor included increased awareness of additional qualities that reside in music making such as emotion, passion, and self-care. For example, another undergraduate Vocal Performance major stated:

[The program] had a lot of things that I wouldn't think of like connecting to music with like General self-esteem and well-being. I didn't realize how that stuff does affect my singing and the music because, for example, on the days where I wasn't getting as much sleep or I was going through a rough patch with someone, I wasn't into the into the music as much as I usually am.

Increased awareness of these qualities also contributed to motivation to keep focus during practice sessions. Participants indicated that the structure of the program helped keep accountability by tracking their musical progress from week to week in addition to increasing practice enjoyment and helping foster new practice habits.

I really liked how it focused on the different parts of practicing. I'd progress to the next level and feel like I'm successful and get a deeper understanding [of that level]. So instead of just picking up my instrument and just going about it like I was treating it like work or homework, the program made it fun again—it's much better. Overall, I know it really helped me. It's a really good resource to have.

One graduate Music Performance major described, “It was a great change that instead of just practicing to actually focus on other things to help you try and progress in a positive way.”

Another factor measured was if the participant noticed any changes as a musician after using the program. An undergraduate choral ensemble member said, “I think so. It made me realize my abilities and helped me think more about planning out what I'm doing—I feel more disciplined and organized.” Another graduate choral ensemble member stated, “I would say yes. And change for the better.” An undergraduate Music Education major also reported, “It definitely felt like the times when I actually paid full attention to the program and worked through it before I practiced, I felt like my practices were more fulfilling.”

Participants also indicated that the program aided in positive affirmation regarding progress and self-validation by utilizing a positive mindset.

It helped me to not to be so frustrated during practicing and just say, ‘Okay, it's one of those days,’ or ‘I can do better tomorrow.’ It's not like, ‘Oh I'm horrible musician now,’ because I used to be like that and [the program] helped me improve that to be able to say, ‘everything is okay.’

This also translated to performance settings as well, “I had a lesson the Monday after we finished [the program] and it was actually technique exam. I went into it, not nervous at all, and played everything the best I've ever played and got a near perfect score—that was incredible.” Additionally, having a resource to track progress helped confirm being on

track with individual practice session goals both within the session itself and over the course of the five-week intervention.

When asked, “Looking back, do you believe that your confidence level has changed if at all over the past five weeks?” most participants indicated that they did notice an increase of personal confidence. One undergraduate Vocal Performance major stated, “I think so. Especially when we got to the self-esteem level. It was kind of a rough week in studio, but after reading through the [Esteem] level, I felt like, ‘it’s okay.’” Part of the increased level in confidence was attributed to a shift in mindset regarding perceptions of failure. Using the *Maslow for Musicians* program assisted in perceiving failure and mistakes as learning opportunities rather than cause for judgment or negativity.

I do feel better. When I was younger, I would frequently think to myself that I'm not good enough. And this program let me realize my potential and try to encourage myself and think more positively. It helped me realize and find ways to how I can feel better about my practicing and my ability.

A change in mindset was also observed regarding perception of practice habits and subsequent shifts in confidence.

I feel like I have gotten more confident. There were some days I'd really dread going into the practice room—like it's just another thing I've got to do. But, using this program helped me realize to take practice as more of a learning experience and start to reflect on what I can really improve on.

Another undergraduate Instrumental Performance major described:

I feel a lot more confident now than I was before I started. I think a lot of my confidence shifted mentally and a lot of the things that were on the [level] checklists, I will now mentally think about before I go into practicing or before I do performance.

Confidence was also considered a predictor for overall emotional and mental well-being towards oneself. One choral ensemble member mentioned, “I feel that working with this

program also made me a better person.” Similarly, increases in self-esteem, potential, and fulfillment were also observed after indicating a shift in mindset from worrying about what others might think to rather focusing on inner abilities and growth.

Another question inquired was if the participant felt that using the program helped make music more meaningful to them as a musician. Overall, participants affirmed that using the program helped make music more meaningful both as a musician and as a person. One choral ensemble member reported, “I think it definitely put me in that mindset [of being more meaningful] when I thought about it beforehand—this is a time to practice, so it's time to just go enjoy it and look at it in a new way.” Likewise, an undergraduate Instrumental Performance major stated, “I began to enjoy [music] more the more I reflected on what was happening.”

Overall appreciation for music was another theme found within interview data. A majority of participants indicated that the program helped in bringing awareness to factors that would have been ignored otherwise (e.g., taking time to think about hierarchal needs to be fulfilled such as feeling safe at home and having a good space to practice). Likewise, a sub-theme that emerged from overall appreciation included rediscovering enjoyment in music through the use of the program.

I feel like it got me back to the reason that I first started making music. When you begin studying music in college, it's more about study and education—more of the educational aspect as opposed to the fun that it has been in the past. The reason I started playing music—I've found that again.

Regarding musical fulfillment and/or satisfaction change over the duration of the study, one graduate Music Performance major responded, “Yeah, I feel like I've been a lot happier with my performance since using the program.” A change in motivation to

practice was also noted, specifically participants indicated looking forward to practice sessions due to a positive mindset alteration regarding practice.

I have enjoyed playing clarinet so much more, and just getting to practice music in general—I look forward to it so much more now than before the program, and that's something that I've been struggling with for many years, just feeling motivated to practice and I think forcing myself to do the study was helpful especially having to practice three times a week at least. And then also using the resources in the program helped as well.

Overall satisfaction with self was also indicated as a sub-theme of musical satisfaction:

I wasn't ever really satisfied with myself with music prior to using the program. I always thought maybe I could do better. I've felt like I haven't done the best in the past because I haven't been chosen for a part. But now I realize, 'You love to do it, so just do it.' So I'm pretty satisfied with myself now and where I've come since using the program.

The sixth interview question was designed to determine whether there was a correlation between Hierarchy level progression and performance satisfaction. When asked, "Were you more satisfied or not at all with your performance the higher you progressed in the hierarchy?" one undergraduate Vocal Performance major reported, "I feel like I was [more satisfied]. I'm happier with my performance, and once I got those other levels down, I felt like I was getting a better practice routine." Another undergraduate Music Education major stated, "Yeah, I felt it [satisfaction] gradually improved. My mindset was a lot more positive." Overall progress in satisfaction during the duration of the five-week intervention was noted across all interview data. However, most participants reported that the higher levels of the Hierarchy (i.e., Level III: Love and Belonging, Level IV: Esteem, and Level V: Self-Actualization) strongly correlated with a substantial increase in performance satisfaction.

The next question asked if the participant felt their musical progress advanced, if at all, during the duration of the study and if they believed the program helped in their

progress. Participants indicated that having greater awareness and appreciation of self aided in musical improvement and progress. Likewise, increased ability to focus in practice, greater organization of rehearsal routine, and change in growth mindset were also noted.

I feel like when I practice as a pianist, I typically try to nit-pick everything and overanalyze everything. And it [the program] made me see the big picture that music is something that needs to be enjoyable not overanalyzed. So it helped me to just let go and enjoy making music.

Confidence was also a sub-theme found within musical progress. Another undergraduate Instrumental Performance major noted, “I feel that the program did help with this because I was actively thinking about those questions [level checklists] and it would just reaffirm to me, ‘Oh, I do think I'm good at this and I do love to do this.’ Being confident helped my self-esteem and self-fulfillment.” Additionally, increased confidence was found to be a predictor in decreased symptoms of performance anxiety and nervousness.

The final question proposed during the interview asked the participant to explain the idea of Self-Actualization and what this idea meant to the participant both as a person and as a musician. Themes found across interview data included validation of abilities, self-acceptance, positive self-image, self-worth, growth, realization of potential, and firm belief in oneself. One undergraduate Instrumental Performance major stated, “Self-Actualization is more positive thinking for myself and just realize that music is affected not just by musical roadblocks, but my personal life as well. I think I realized my potential and how well I can actually play [musically] if I believe in myself.”

Among interview data, realization of potential was a prevalent theme that emerged. Factors attributed to this theme included increased confidence and self-efficacy.

I felt like the fifth [level] was my favorite one. I liked when I went through it [level checklist] and I felt like I had made peace with myself. I feel like more of a musician after it [the program] because I feel like I have a fighting chance to know how I've been doing lately. So, I feel like I've really come into myself as a musician and with some new practices most importantly. I feel like level five kind of brought it [the program] to a close in a way where I felt like closure with it, but I want to continue it with the rest of my routine.

Self-worth and value were also noted as contributing factors to realization of potential.

One undergraduate choral ensemble member stated, "I think self-actualization is very important because sometimes you forget your abilities and you don't realize how to value yourself. This program has helped me to realize my abilities and value myself more."

Another graduate choral ensemble member explained:

As a person, I look at self-actualization as not only being all that I can be, but also perhaps being even more. The realization that you're actually there, as opposed to just going through the motions such as just showing up to rehearsal, going to lessons, and practice. But self-actualization is recognizing the value of those motions in order to get to the performance. As a musician, self-actualization was the realization of not only do I think I can, but also, 'I know I can. I know what I'm doing, I know that I have a reason to be here.' Getting to the level of self-actualization helped to reinforce that I do know what I'm doing and I do deserve to be here.

Overall, almost all participants indicated that they felt to have either achieved or were close to achieving musical self-actualization post-intervention.

## CHAPTER V

### DISCUSSION

#### **Summary of Procedures**

Procedures followed the explanatory mixed methods design as described by Creswell and Clark (2011) with a first strand of quantitative data and a second strand of qualitative data to help further explain the results of the initial quantitative strand. Prior to the start of this study, each participant was given The Positivity Scale (Caprara et al., 2012) to measure personal optimism, the Performance Anxiety Inventory (Nagel, Himle, & Papsdorf, 1981, 1989), and the self-created Musical Abilities Beliefs Assessment, an assessment of current perceived musical skills evaluating confidence, self-efficacy, self-satisfaction, and musicianship.

During the duration of the five-week intervention, participants were asked to practice the repertoire as assigned by their studio professor and select three practice sessions or lessons of their choice every week to evaluate while using the *Maslow for Musicians* program. Participants were asked to spend *at least* 10 minutes within the program prior to each chosen practice session or lesson and fulfill the needs found on each level's checklist with weekly concentration on one target level, working from Level I: Physiological up to Level V: Self-Actualization by Week Five. Immediately following each chosen practice session or lesson, participants were required to submit survey answers intended to reflect upon their perception of the program in correspondence to their actual



perceived performance within their practice session/lesson. To help ensure consistent participation for this program of self-directed learning, participants were asked to create a login username and password on the website, and engagement was tracked per user via analytic coding including login time, engagement duration, and submitted responses per level completed.

After the Week Five surveys were completed, all participants were once again given the Positivity Scale (Caprara et al., 2012) the Performance Anxiety Inventory (Nagel, Himle, & Papsdorf, 1981, 1989), and the Musical Abilities Beliefs Assessment, in addition to the Measurement of Self-Actualization Index (Jones & Crandall, 1986).

Following the quantitative data collection, the qualitative strand of personal interviews were conducted ( $M = 10:08$  minutes) with each participant regarding their individual reflections on musical growth, musical habits, and how the program could have contributed to these outcomes over the past five weeks. During the interviews, data were recorded for transcription and analysis purposes. Data were then analyzed using descriptive statistics and preliminary inferential statistics such as the repeated measures ANOVA and paired t-tests were conducted in an exploratory sense as a guide for future research.

### **Summary of Results**

Quantitative data from this study found increases overall in perceived weekly Confidence ratings, self-reports of engagement in Flow, perceived Emotional and Mental Fulfillment, Overall Performance Experience ratings, Personal Optimism, perception of Musical Abilities, and a decrease in Performance Anxiety scores from pre-intervention to post-intervention. Survey data collected also found that 23 out of 25 participants felt

happy with their performance progress during the duration of the intervention and these same participants reported that they believed that the *Maslow for Musicians* program helped strengthen their practice routine and overall feelings of personal musicianship. Further preliminary inferential statistical analysis found significant increases in Confidence measures, Overall Experience measures, Personal Optimism, and perception of Musical Abilities. Likewise, Qualitative data supported quantitative findings through thematic coding analysis pointing to themes of progression of confidence, change in mindset, belief in one's self and musical abilities, positivity, improvement, and creation of new habits. By the end of the program, 22 out of 25 participants reported that they felt to have either achieved or were close to achieving Musical Self-Actualization, and 24 out of 25 participants reported that they would continue using the *Maslow for Musicians* program in the future.

Given these findings, it can be said that the *Maslow for Musicians* program supports the initial three research questions from Chapter I. First, there does seem to be a link between a performer's mindset and the outcome of perceived performance, execution, and connection to the music through self-reported ratings of Confidence, Emotional and Mental Fulfillment, Overall Experience, Beliefs about Musical Abilities, and Personal Optimism from pre-intervention to post-intervention. Interview data supported this research question as well with 24 out of 25 participants reporting that this program helped make music more meaningful, stimulated mindset shifting, increased satisfaction, and boosted daily positivity, self-esteem, and motivation. Additional themes mentioned in the interviews included increased awareness of self, enjoyment of music making, reflection, and realization.

When considering the second research question, an immediate and measurable perceived improvement to the performer's musical productivity can also be observed, especially within self-reports of engagement in Flow and Overall Experience ratings. In Week 1, more participants reported that they did not become immersed within the music in a 60% to 40% comparison. However, by Week 5 more participants reported engaging in Flow 76% to 24% (see Figure 2). Similarly, Overall Experiences ratings had an increase of mean scores of .84 from Week 1 to Week 5. This is the difference between only 15 out of 25 participants reporting fairly positive (4) and positive (5) ratings (6 of these participants reported a rating of 5 [positive]) in Week 1, and 24 out of 25 participants reporting ratings of fairly positive (4) and positive (5) (15 of which reported a rating of 5) by Week 5. Interview data also supported this research question with reports of increased musical satisfaction, focus, and creation of new habits and structure for preparation, practice, and performance.

Finally, in regard to the final research question, I believe the *Maslow for Musicians* program can, in fact, become a useful source to musicians to help overcome performance anxiety and promote musical self-actualization from just considering the collected data. As mentioned previously, 22 out of 25 participants reported that they felt to have either achieved or were close to achieving Musical Self-Actualization, and 24 out of 25 participants reported that they would continue using the *Maslow for Musicians* program in the future. Regarding Performance Anxiety, although the difference in mean score was not considered statistically significant, there still was a decrease in mean score by 2.2 points and a decrease of 7 points in maximum score reported from pre-intervention to post-intervention (PRE = 74, POST = 67). This finding suggests that even in five

weeks, a decrease in Performance Anxiety symptoms can be observed after using this program. SAI scores also suggest that a majority of participant scores were closer to being self-actualized than not with a normal distribution of scores between 41 and 47 ( $M = 43.2$ ;  $SD = 2.61$ ) on a scale of 15 to 60 (Figure 19).

### **Limitations**

Although the data of this study found improvement in all collected measures, it is important to note that the overall population was small ( $N = 25$ ). As indicated in the previous chapter, in order to be considered reliable for inferential statistical analyses at a statistical power of .95 ( $F = 2.45$ ;  $p < .05$ ), a total sample size of 31 participants would be required to conduct a reliable repeated measures ANOVA measuring within factors, and a total sample size of 54 participants would be required to conduct a reliable paired t-test at a statistical power of .95 ( $t = 2.01$ ;  $p < .05$ ).

Other limitations include self-reporting, participants from a single university, and the possibility of changes made outside of the program's use. Unfortunately, subjectivity can be more difficult to gauge in quantitative data collection due to individual unique perspectives, values, and beliefs. However, although there has been debate about objectivity versus subjectivity in research, both sides still have their own advocates in part from the stagnant conflict of ancient Greek and Enlightenment beliefs in contrast to postmodern values. Third, participants in this study were part of a single university. Future research should look to incorporating a variety of different universities from across the country to determine replicability and any outlying factors that may need to be addressed within the program (e.g., demographic, rural versus city culture, varied music programs). Finally, there is a possibility that changes observed could be attributed to

outside factors. Future research should include testing a control group versus a treatment group to create equalizing conditions for data collection.

### **Discussion**

As mentioned in Chapter II, Maslow's Hierarchy theory has received some criticism regarding data collection, validity, and reliability. Although these criticisms are valid points of concern when it comes to collecting data, I would argue that these elements should not discredit the theory and its potential to help reach Self-Actualization. Although subjectivity is harder to collect from a data standpoint, it is crucial to remember that people are inherently different from one another; therefore, what works for one person may not work for someone else. However, just having the resource to have an effect on that one person can still make a positive impact on the world in which they live, which I believe to be an invaluable part of the human experience. I believe that the findings of this study can support this idea as we can observe gradual improvement and progress in all measured factors from the entire population as a whole. There are visible shifts in scores and ratings from pre-intervention to post-intervention as seen in Figures 1-4, which seems to be a fascinating phenomenon in such a short (yet substantial) amount of time.

Criticism of Maslow's theory include the assumption that lower-level needs must be satisfied before a person can achieve their potential and self-actualize. However, it can also be argued that all needs aren't exactly meant to be met in order, but the framework of the pyramid emphasizes the important groundwork needed to be placed in order to work up to Self-Actualization. Although McLeod (2007) argues that people can still feel support from their friends while feeling hungry, it could be that the level of hunger could

affect our interaction of these relationships on a particular day. If physiological needs are lacking while trying to obtain optimal functional performance, it can ultimately affect emotional and psychological states and needs if left unattended. It is from this idea that I would argue in favor of the Hierarchy. I believe that each level does, in fact, effect one another sequentially, either directly or indirectly in regard to optimal functionality, akin to a domino effect. In the current study, quantitatively there were observed increases in confidence, flow, emotional and mental fulfillment, and overall experience. From the collected qualitative data, participants indicated increased confidence, self-esteem, realization, positivity, performance satisfaction, and awareness in addition to positive perception of overall progress made, change in overall mindset, and formulation of new habits. I speculate that these findings can be attributed to the intentional design of layering each level every week working up to the target level of the week. The hierarchy is designed to work from the outside inward; as layers are peeled back one by one, the core of the innermost self is eventually exposed. I believe optimal functioning depends on this connection of and interaction from level to level.

The Hierarchy can be especially relevant for musicians. A musician's performance is highly dependent on many factors, which can relate directly to the needs as described in Maslow's original hierarchy theory. For example, lack of sleep directly affects the quality of performance and the same idea can be translated to performance anxiety related to a sense of support or self-esteem. Further, it is imperative for the musician to be mindful of deficiencies that directly affect performance and musicality. Looking from the outside-in, using this hierarchical program, attention can be brought to unfulfilled needs that must be met to increase the opportunity for optimal musical performance.

Finally, for musicians, I would argue in favor of not only providing opportunities for Self-Actualization, but also creating opportunities for Musical Self-Actualization. I would define Musical Self-Actualization as reaching our greatest musical potential, including peak-performance and the ability to create music freely and confidently. Part of this process can be achieved using the theoretical framework of Sports Performance Psychology as grounds for creating the proposed subdiscipline of Music Performance Psychology within this paper.

### **Future Implications**

Looking forward, I am currently working on the final version of the *Maslow for Musicians* program intended to be used as an application that will work as a goal tracker similar to Fitbit, which will be available via smartphone, web, and tablet. The app will create individualized assessment plans based on initial feedback from users when they first log in, and from this feedback, rotating content will be chosen using branching logic algorithms to create customized individual experiences to fit the specific needs of the individual performer. For example, the number of hours of sleep needed for optimal functioning is different for every individual. The branching logic algorithms will define and save how many hours Participant A will need versus Participant B when they use *Maslow for Musicians*, therefore each version of the program will be customized to the needs of the individual. Additionally, more classroom and instructor tools for application will be accessible for educators to be able to incorporate this program into their curriculum.

As mentioned in Chapter I, the ultimate goal for this study is to open the doorway into a new subdiscipline titled Music Performance Psychology, which would study the

theories in Sports Performance Psychology and the effects (both positive and negative) on the pedagogical functions of the musical performer. This theory will take those found within Sports Performance Psychology (along with other related Psychological theories) as a base structure and fit them to the needs of the musician—the musical athlete—to help the performer work towards Peak Performance. Within this theory, focuses are to include the study of stress, motivation, confidence, the creation of alter-egos as a resource to help alleviate symptoms of performance anxiety through the use of disassociation techniques, and the importance of a support system and its impact on a performer. In addition to the studies outlined above, an emphasis within this area of study would also include the exploration of the psychological aspects that contribute to the invention of art, creativity, and interpretation; the process of literally “getting into character”; and behavioral and motivational aspects (i.e., what makes the performer “tick” and why).

Becoming a successful musician is more than having talent alone. A performer must also possess ability (i.e., stamina), including physical attributes such as breath control and superior musical pedagogical functioning (e.g., posture and technique) and psychological attributes such as mental preparation, accurate musical cognition, and memorization. However, an attribute that often seems to be overlooked (or otherwise unkindled) is resilience—which can in turn have a direct effect on overall confidence, self-esteem, self-efficacy, emotional fulfillment, mindset, and motivation. The *Maslow for Musicians* program was created to help fill that void and give musicians and performers of all ages the resources to help them build resilience through increased confidence in their own musical abilities, potential, and self-perception. Fulfilling the mental wellbeing and psycho-emotional processes of performing is an essential piece in



self-awareness and growth for a musician as a whole, and *Maslow for Musicians* can provide the appropriate avenues to help musicians get on the right path to reach their greatest potential.

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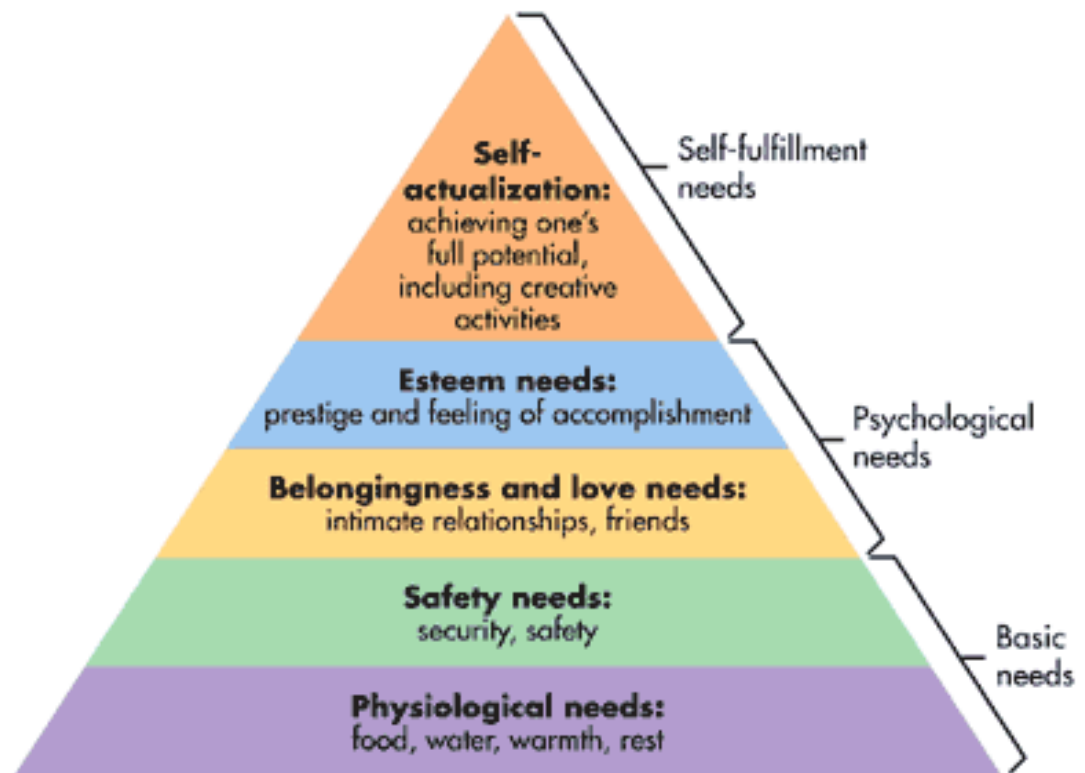
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APPENDIX A  
MASLOW'S HIERARCHY OF NEEDS  
(MASLOW, 1970)



1. Biological and Physiological needs: air, food, drink, shelter, warmth, sex, and sleep.
2. Safety needs: protection from elements, security, order, law, stability, freedom from fear.
3. Love and Belongingness needs: friendship, intimacy, affection and love, - from work group, family, friends, and romantic relationships.
4. Esteem needs: achievement, mastery, independence, status, dominance, prestige, self-respect, and respect from others.
5. Self-Actualization needs: realizing personal potential, self-fulfillment, seeking personal growth and peak experiences.

APPENDIX B  
INSTITUTIONAL REVIEW BOARD  
APPROVAL LETTER





*Institutional Review Board*

DATE: October 17, 2018

TO: Melynie Campbell

FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1137203-3] Achieving Musical Peak Performance: The Impact of an Online Self-Efficacy and Performance Anxiety Management Program Based on Maslow's Hierarchy of Needs

SUBMISSION TYPE: Continuing Review/Progress Report

ACTION: APPROVED

APPROVAL DATE: October 17, 2018

EXPIRATION DATE: October 11, 2019

REVIEW TYPE: Expedited Review

Thank you for your submission of Continuing Review/Progress Report materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of October 11, 2019.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Nicole Morse at 970-351-1910 or [nicole.morse@unco.edu](mailto:nicole.morse@unco.edu). Please include your project title and reference number in all correspondence with this committee.

APPENDIX C  
CONSENT FORM FOR HUMAN PARTICIPANTS  
IN RESEARCH



CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH  
UNIVERSITY OF NORTHERN COLORADO

Project Title: Achieving musical peak-performance: The impact of an online self-efficacy and performance anxiety management program based on Maslow's Hierarchy of Needs

Researcher: Melynie Campbell, M.M., School of Music;

Dr. Mark Montemayor, Advisor (mark.montemayor@unco.edu)

Phone: (720) 422-1343

E-mail: camp8191@bears.unco.edu

Purpose and Description: The purpose of this study is to discover if the application of the interactive *Maslow for Musicians* program (<http://maslowformusicians.wix.com/music>) would be beneficial to helping a musician work towards peak performance within their craft. Participants will be given the opportunity to train with this program over the course of five weeks and evaluate the process.

The *Hierarchy of Needs* (as created by Maslow) includes five motivational needs, depicted in a pyramid format. These needs include: Physiological, Safety, Love and Belonging (Social), Esteem, and Self-Actualization. According to Maslow, a person must satisfy lower levels of needs before they can progress to the next level, and only when these needs have been properly satisfied can they reach the highest level of Self-Actualization. Anyone is capable and equipped to move to Self-Actualization, however, many do not due to disrupted progress by failing to meet lower level needs (such as ending a relationship, loss of job, overcoming failure, etc.). The *Maslow for Musicians* program works as a goal tracker as it guides the user through the *Hierarchy* that is customized to musicians and their craft.

The intention of this study is not to interfere with your normal music practice routine. Rather, you will be asked to use this program for five weeks prior to your normally scheduled practice session or lesson to become consciously aware of any unfulfilled needs that should be met beforehand to ensure optimal practice conditions. You will be required to choose three practice sessions or lessons per week and asked to complete a short five minute confidential survey (10-15 questions) that is to be sent to only the Principal Investigator (Melynie) on Qualtrics to evaluate your thoughts about the process. Prior to the start of the study, you will receive three surveys to complete regarding personal optimism, Performance Anxiety, and perceived musical abilities. Once this step is completed, the study can formally begin.

Weeks one through five will incorporate the use of the *Maslow for Musicians* program prior to your chosen practice session/lesson. You will not go further in the program than the level being focused on that week. Week two will build to Level 2: Safety, week three will build up to Level 3: Belongingness, week four will build up to Level 4: Esteem, and finally week five will build up to Level 5: Self-Actualization. Like Week 1, you will then be asked to submit your survey answers about your experience through Qualtrics.

Following the conclusion of the study, you will be given the same surveys completed at the beginning of the study regarding personal optimism, Performance Anxiety, and a new survey on Self-Actualization. You will also be asked to schedule a short interview with the Principal Investigator (Melynie) to discuss the program and the overall process over the past five weeks including questions regarding musical progress and additional observations during the study.

I will take every precaution in order to protect your confidentiality through the use of Qualtrics for survey submissions. Only the Principal Investigator will have access to the results of the survey submissions. Additionally, the data collected from this study will be stored in a file folder specifically dedicated to this study on the password-protected computer of the Principal Investigator.

The risks from this study are minimal to none, as you will only be asked to reflect upon your daily musical practice routine with the addition of increased awareness of (and attention to) the fulfillment of essential needs to work towards achieving musical progress and confidence. It is also important for me to mention that participation within this study will not affect your grade in any course, nor any effect on your standing within the School of Music. Musicians and music educators will be the populations who most benefit from the results of this study. It is my hope that the *Maslow for Musicians* program will eventually become a resource for musicians and music educators alike to start the journey towards becoming the best musician they can be.

Additionally, compensation will be provided. All participants will be entered into a drawing to win 1 of 5 \$10 gift cards. **In order to qualify for the drawing, you must see the study through to the end**, at which point your name will be entered and winners will be randomly selected.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Nicole Morse, IRB Administrator, Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

Thank you for your interest in participating in this study!

By signing below, I certify that I am of at least 18 years of age.

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Subject's Signature

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Date

---

Researcher's Signature

---

Date

APPENDIX D  
MASLOW FOR MUSICIANS PROGRAM



# Maslow for Musicians

Home    Level I: Physiological    Level II: Safety    Level III: Love/Belonging    Level IV: Esteem    Level V: Self-Actualization    Applications for Instructors

## Welcome to Maslow for Musicians

Helping Musicians Everywhere Achieve Peak Performance Through Maslow's *Hierarchy of Needs*

What motivates us?

In 1943, Abraham Maslow questioned this same idea and concluded that people are motivated to achieve certain needs. These needs are fulfilled in a progressive fashion, for example, when a particular need is fulfilled a person will be motivated to fulfill another need. Thus, he created the *Hierarchy of Needs* to explain his theory.

The *Hierarchy* includes five motivational needs, depicted in a pyramid format. These needs include: Psychological, Safety, Love and Belonging (Social), Esteem, and Self-Actualization. According to Maslow, a person must satisfy lower levels of needs before they can progress to the next

*"A musician must make music, an artist must paint, a poet must write, if he is to be ultimately at peace with himself. What a man can be, he must be"*

— Abraham Maslow



*Maslow for Musicians Homepage*

The screenshot shows a website page with a navigation bar at the top containing: Home, Level I: Physiological (highlighted in yellow), Level II: Safety, Level III: Love/Belonging, Level IV: Esteem, Level V: Self-Actualization, and Applications for Instructors. The main content area has a dark background and features the following elements:

- Section Header:** *Physiological Needs*
- Text:** "Physiological needs refer to the physical requirements needed for survival. Needs applicable to this tier include air, food, drink, shelter, warmth, and sleep."
- Text:** "Physiological needs must be met in order for the body to function properly. These needs are considered the most important, therefore, they must be met first before advancing to the next set of needs."
- Text:** "For musicians, the basis of performance begins here. Musicians must stay hydrated, work on breath support, get enough sleep, and keep the performer and instruments in comfortable temperatures in order to be able to perform well."
- Pyramid Diagram:** A five-tiered pyramid with the following levels from top to bottom: Self-Actualization (blue), Esteem (green), Love/Belonging (yellow), Safety (orange), and Physiological (red).
- Checklist:** A yellow box titled "Level One: Physiological Needs" containing a list of items:
  - I Drank At Least 6-8 Glasses Of Water Today To Be Properly Hydrated
  - I Feel Well Nurished
  - I Feel That My Breathing Is Well Supported
- Motivational Video:** A video player showing a person with the text "Dream - Motivational Video" and "Courtesy of Mateusz M".

Level I: Physiological Needs page

For musicians, the basis of performance begins here. Musicians must stay hydrated, work on breath support, get enough sleep, and keep the performer and instruments in comfortable temperatures in order to be able to perform well.

**Safety**

**Physiological**


**Level One: Physiological Needs**

- I Drank At Least 6-8 Glasses Of Water Today To Be Properly Hydrated
- I Feel Well Nourished
- I Feel That My Breathing Is Well Supported
- I Feel Well Rested
- I Have A Safe And Comfortable Place To Practice
- I Have A Safe And Comfortable Place To Rest
- I Feel Free Of Physical Discomfort That Could Negatively Impact My Performance

**Done!**

[Free website tools](#)

Motivational Video  
 Dream  
 Courtesy of Mateusz M



Level I: Physiological Needs page: Checklist and motivational video *Dream*. Note: All levels have a customized checklist tailored to the needs specific to each level and a motivational video related to level content.



**Tips For Fulfilling Your Physiological Needs**

**Stay Hydrated**  
 Having trouble getting or staying hydrated? Here are some other sources of hydration that can also serve as nourishment to help you get through your day:  
<http://www.webmd.com/food-recipes/top-10-ways-to-stay-hydrated>

Why Drink Water? Explore the 7 Wonders of Water  
<http://www.webmd.com/diet/ss/slideshow-water-health>

**Get The Nourishment You Need To Get You Through The Day**  
 Pick foods that will keep you energized to power through the day! Make sure to eat a balanced breakfast, lunch, and dinner with small snacks in between.

Great snacks to pack can include fruits and vegetables, cheese sticks, and something with protein like peanut bars or mixed nuts. Click below to learn about the benefits of protein:  
<http://www.choosemyplate.gov/protein-foods-nutrients-health>

Tired of the same old snacks? Get creative! Here are some healthy, creative, and easily portable snacks:  
<http://steadystrength.com/10-mouthwatering-healthy-snack-ideas/>

**Get Plenty Of Rest**  
 The National Sleep Foundation recommends between 7-9 hours of sleep to be fully recharged

The Power of the Power Nap  
 Didn't get enough sleep last night, but have a few minutes to spare? Take a Power Nap! The full benefits of a Power Nap can be fulfilled in just 15-30 minutes:  
<http://www.webmd.com/balance/features/the-secret-and-surprising-power-of-naps>

**Keep Stress At Bay**  
 Make use of the benefits of stress relieving practices such as Yoga and Tai Chi. Not only will these practices help reduce stress, they force the individual to focus on their breathing.  
<http://makingmusicmag.com/why-musicians-need-yoga/>

Level I: Physiological Needs page: Tips for fulfilling Physiological needs section. *Note: All levels have a tips for fulfilling needs section located at the bottom of the page for each level.*

Home > Level I: Physiological > **Level II: Safety** > Level III: Love/Belonging > Level IV: Esteem > Level V: Self-Actualization > Applications for Instructors

### *Safety Needs*

Once Physiological needs are satisfied, Safety needs can now be addressed. Safety needs include protection from elements, security (personal and financial), order, law, stability, health and well-being, and freedom from fear. In the event of an absence of any of these factors can cause negative side-effects such as (re-)experience of post-traumatic stress disorder (PTSD), trauma (mentally and emotionally), anxiety, and effect progress toward the next tier. Motivation to fulfill these needs guides behavior as a person strives for full protection mentally, physically, financially, and emotionally.

The importance of Safety to a musician must be treated with care. Safe relationships with lesson instructors and a safe environment can make a difference between feelings of success and failure in a musician. This includes building positive relationships, feeling comfortable financially, and establishing secure balance between performance and personal life.



#### **Level Two: Safety Needs**

- I Feel That I Have A Stable Relationship With My Lesson Instructor
- I Feel That I Have A Stable And Secure Relationship With My Family/Partner

**Motivational Video**  
 Idea  
 Courtesy of Mateusz M

Idea - Motivational Video


Level II: Safety Needs page with checklist and motivational video *Idea*.

Home > Level I: Physiological > Level II: Safety > **Level III: Love/Belonging** > Level IV: Esteem > Level V: Self-Actualization > Applications for Instructors

### *Love and Belonging Needs*

Love and Belonging needs focus on interpersonal relationships and belongingness. Set-backs such as neglect and ostracism can have a negative impact on how an individual can create and maintain relationships including friendships, family, and the ability of intimacy. Belonging and acceptance are key factors for success in fulfilling this tier, whether the the group be large (co-workers, clubs, and professional organizations) or small (partners, mentors, family, and peers). Deficiencies within this tier can result in feelings of loneliness, depression, and anxiety in social settings.

Building and maintaining interpersonal relationships create better performance abilities. If a performer doesn't feel that they belong or are appreciated, they will not feel motivated to perform well, if at all. It is important that positive environments are created to foster relationships for a better music making experience. These relationships include, but are not limited to, conductors, colleagues, directors, lesson instructors, family, and friends.



#### **Level Three: Love And Belonging Needs**

- I Feel Supported And Encouraged By My Lesson Instructor
- I Feel Comfortable Talking With My Lesson Instructor About Any Problems I May Be Having During Practice

Motivational Video  
Awakening  
Courtesy of Mateusz M

Level III: Love and Belonging Needs page with checklist and motivational video *Awakening*.

Home    Level I: Physiological    Level II: Safety    Level III: Love/Belonging    **Level IV: Esteem**    Level V: Self-Actualization    Applications for Instructors

### *Esteem Needs*

Esteem focuses inward on feelings of respect, including for one's self. Needs in this category include achievement, mastery, independence, status, dominance, prestige, self-respect, and respect from others. These needs present perceived value of the self by others, therefore, we strive to meet these needs to feel a sense of acceptance. Often, acceptance comes from recognition which improves feelings of contribution and self-worth. Though seeking recognition from others increases the positive attributes of the self, the key to success in this level comes from within. According to Maslow, there are two types of esteem needs. The "lower" type of esteem comes from the need of being respected and accepted by others such as through status, recognition, and attention. The "higher" type of esteem draws closer to entering Self-Actualization, which is the need and fulfillment of self-respect and acceptance which can be accomplished through competence, mastery, confidence, and strength. It is just as important (if not more) to seek acceptance and respect from ourselves as it is to seek acceptance and respect from others. Deficiencies in this level can lead to low self-esteem, low self-respect, withdrawal, and depression hindering the opportunity to move ahead to the next level.

Fulfilling Esteem needs is undoubtedly important to the musician. Deprivation of these needs can become the breaking point between success and quitting. It is important to seek the later of the two types of Esteem because success relies on how successful you perceive yourself to be. Understanding that you are a great musician, and you work hard at it and are passionate about it, moves you closer to Self-Actualization where you can achieve peak performance. The key is to believe in yourself.


Level IV: Esteem Needs page

because success relies on how successful you perceive yourself to be. Understanding that you are a great musician, and you work hard at it and are passionate about it, moves you closer to Self-Actualization where you can achieve peak performance. The key is to believe in yourself.

### Level Four: Esteem Needs

- I Know That I Am A Great Musician
- I Feel Confident In My Musical Abilities
- I Appreciate My Current Musical Abilities
- I Feel Proud Of My Practices And Performances
- I Appreciate Who I Am As A Musician
- I Appreciate Who I Am As A Person
- I Feel Successful In My Field
- I Love What I Do Because I Feel That I Am Good At It

Done!

 Free website tools

#### Motivational Video

Unbroken

Courtesy of Mateusz M



#### Tips For Fulfilling Your Esteem Needs

##### Looking into the Mirror

Building Esteem is such a fragile process, but a necessary one. The most important person who should believe in you is yourself. Build inner

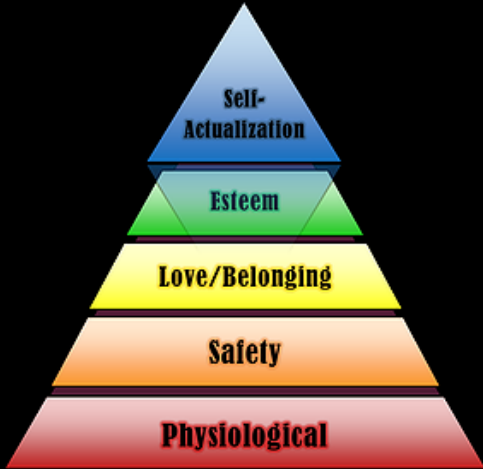
Level IV: Esteem Needs page: Checklist and motivational video *Unbroken*.

Home > Level I: Physiological > Level II: Safety > Level III: Love/Belonging > Level IV: Esteem > **Level V: Self-Actualization** > Applications for Instructors

### Self-Actualization Needs

The Self-Actualization Level refers to the realization of one's potential, self-fulfillment, and seeking further personal growth and peak experiences. Realizing one's own potential pushes the desire to accomplish anything we set our minds to. This sense of accomplishment fulfills our inner-most desire to be our best self. Success of this level comes from the mastery of the previous levels, as each leads to the next in our journey to our fullest potential. Once you have reached Self-Actualization, it can be your choice on what to focus on such as personally or professionally. Therefore, mastery of this level comes from personal choice and the creation of experiences in which can lead to growth and peak performance.

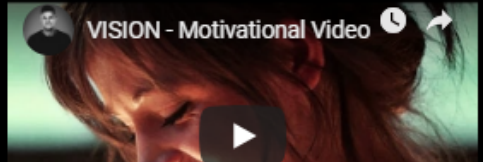
For musicians, the realization of personal potential leads directly into peak performance as we immerse ourselves in our craft. If we understand that we are not only part of the craft, but the craft itself, the level of accomplishment and fulfillment is rewarding for both the performer and the listener. As we build these experiences, we can further perfect them leading to the ultimate music experience.



**Level Five: Self-Actualization**

- Through This Journey, I Have Realized My Greatest Potential

**Motivational Video**  
Vision  
Courtesy of Mateusz M



Level V: Self-Actualization Needs page

are not only part of the craft, but the craft itself, the level of accomplishment and fulfillment is rewarding for both the performer and the listener. As we build these experiences, we can further perfect them leading to the ultimate music experience.

### Level Five: Self-Actualization

- Through This Journey, I Have Realized My Greatest Potential
- I Understand That Making Mistakes Is Acceptable And Does Not Reflect On My Character
- I Am Aware Of How I Can Continue To Further Perfect My Craft
- When Practicing And Performing, I Immerse Myself Into My Craft
- I Feel Fulfilled When Making Music
- I Am Happy With My Life And The Experiences It Has Given Me

Done!

[Free website tools](#)

### Tips For Fulfilling Your Self-Actualization Needs

#### Realize Your Potential

## Physiological

### Motivational Video

Vision

*Courtesy of Mateusz M*



### Motivational Video

Destiny

*Courtesy of Mateusz M*



Level V: Self-Actualization Needs page: Checklist and motivational videos *Vision* and *Destiny*.

Home > Level I: Physiological > Level II: Safety > Level III: Love/Belonging > Level IV: Esteem > Level V: Self-Actualization > Applications for Instructors

### *Applications for Instructors*

The following pages found under the "Applications for Instructors" tab introduce different aspects of Motivation including goal setting, mindset, the theory of Flow, and understanding differences in learning styles. Application of these theories in instruction will increase student motivation to learn and discover their potential. It is our job as instructors to help our students become the best musicians they can be, therefore, by implementing the following theories in our instruction will become greatly beneficial. Application of Maslow's theory is also greatly beneficial and is never too early to start teaching. Below are ways in which Maslow's *Hierarchy* can be introduced to students.

To begin, please select a theory from under the "Applications for Instructors" tab.

### *Application of the Hierarchy*

Application of the *Hierarchy* can be introduced to a student at any time to help them work toward peak performance. Just as we navigate through the levels, students can (and should) too.

Begin by explaining the theory to the student. Depending on the age of the student, modifications for understanding can be made. For example, for younger students, asking simple questions throughout a lesson starting from the bottom level can promote self-reflection in even the youngest of students.

Applications for Instructors page



The screenshot shows a web application interface with a navigation menu at the top. The menu items are: Physiological, Level II: Safety, Level III: Love/Belonging, Level IV: Esteem, Level V: Self-Actualization, and Applications for Instructors. The 'Applications for Instructors' tab is highlighted in yellow. A dropdown menu is open over this tab, listing: Goal Setting, Mindset, Flow Theory, Differences in Learning Styles, and References. The main content area has a black background with white text. The title is ***Applications for Instructors***. The text reads: "The following pages found under the 'Applications for Instructors' tab introduce different aspects of Motivation including goal setting, mindset, the theory of Flow, and understanding differences in learning styles. Application of these theories in instruction will increase student motivation to learn and discover their potential. It is our job as instructors to help our students become the best musicians they can be, therefore, by implementing the following theories in our instruction will become greatly beneficial. Application of Maslow's theory is also greatly beneficial and is never too early to start teaching. Below are ways in which Maslow's *Hierarchy* can be introduced to students. To begin, please select a theory from under the 'Applications for Instructors' tab." Below this text is another section titled ***Application of the Hierarchy*** with the text: "Application of the *Hierarchy* can be introduced to a student at any time to help them work toward peak performance. Just as we navigate through the levels, students can (and should) too." At the bottom right, there is a blue triangle pointing upwards with the text "Self-Actualization" inside it.

Physiological    Level II: Safety    Level III: Love/Belonging    Level IV: Esteem    Level V: Self-Actualization    Applications for Instructors

***Applications for Instructors***

The following pages found under the "Applications for Instructors" tab introduce different aspects of Motivation including goal setting, mindset, the theory of Flow, and understanding differences in learning styles. Application of these theories in instruction will increase student motivation to learn and discover their potential. It is our job as instructors to help our students become the best musicians they can be, therefore, by implementing the following theories in our instruction will become greatly beneficial. Application of Maslow's theory is also greatly beneficial and is never too early to start teaching. Below are ways in which Maslow's *Hierarchy* can be introduced to students.

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***Application of the Hierarchy***

Application of the *Hierarchy* can be introduced to a student at any time to help them work toward peak performance. Just as we navigate through the levels, students can (and should) too.

Self-Actualization

Goal Setting  
Mindset  
Flow Theory  
Differences in Learning Styles  
References

Applications for Instructors page: Hovering over the Applications for Instructors tab will provide a dropdown menu of different Psychological theories such as Goal Setting, Mindset, Flow, and differences in learning styles.

Level I: Physiological    Level II: Safety    Level III: Love/Belonging    Level IV: Esteem    Level V: Self-Actualization    Applications for Instructors

Goal Setting  
Mindset  
Flow Theory  
Differences in Learning Styles  
References

## Goal Setting

There are many theories about goals, but the most well known is The Goal Setting Theory developed by Edwin A. Locke in 1968. Goal Setting Theory was built to help explain human actions in a given situation. The main argument states that goals and intentions are cognitive and willful and serve as mediators of human actions through our values. Our values play a key role in goal setting because they determine what would be most beneficial for our needs.

Of the many findings within this theory, there are two that are deemed most important. The first finding states that setting specific goals, rather than general goals, sets the individual up for success because it generates higher levels of performance to achieve that goal. The second finding states that goals that are more difficult to achieve are directly correlated with the level of performance. For example, the harder the set goal is, the harder the individual will work to achieve it.

Goals can be broken down into two characteristics: content (chosen achievement) and intensity (the quantity of physical and mental resources needed in order to create or achieve the content characteristic).

According to Locke, there are four factors that explain how goal setting can affect individual performance:

- 1) Goals focus attention toward goal-relevant activities and away from goal-irrelevant activities.
- 2) Goals serve as an energizer: Higher goals induce greater effort, while low goals induce lesser effort.
- 3) Goals affect persistence; constraints with regard to resources affect work pace.
- 4) Goals activate cognitive knowledge and strategies that help employees cope with the situation at hand.

One way in which goal-setting can be achieved is through looking at it through the SMART goals lense.

Example page from Applications for Instructors dropdown menu: Goal Setting

how the process of creating goals simpler.

SMART goals are broken down as such:

- S) Specific – target a specific area for improvement.
- M) Measurable – quantify or at least suggest an indicator of progress.
- A) Attainable – assuring that an end can be achieved.
- R) Realistic – state what results can realistically be achieved, given available resources.
- T) Time-related – specify when the result(s) can be achieved.

Crafting a specific goal under the SMART goals theory helps guide the individual create a realistic and specific goal that can be achievable. Otherwise, the process can be slightly intimidating. However, by breaking it down to meet specific criteria, formulating goals seems more manageable therefore creating more motivation to achieve them.

### ***Application for Instructors***

Here are a few steps to start the goal setting process:

- 1) Begin by asking the student what goals they would like to achieve while in your studio, both long-term and short-term
- 2) Help the student evaluate each goal through the SMART criteria
- 3) If a particular goal does not seem attainable, help the student formulate a similar achievement in a different way
- 4) Discuss with the student how they would like to achieve each goal
- 5) Together, form a plan or schedule for the student to keep track and see their progress as it unfolds

Forming a physical plan (such as a checklist or step-by-step progress chart) will give the student the ability to evaluate their progress outside of the studio, increase motivation to achieve each step within the goal, and see their individual growth as a musician.

Goal Setting page (cont.): Application for instructors section located at the bottom of the page with tips on how instructors can apply the theory in their instruction. *Note: All theories in the Applications for Instructors dropdown menu contain this section at the bottom of the page.*

APPENDIX E

THE POSITIVITY SCALE (CAPRARA ET AL., 2012)

The Positivity Scale (Caprara et al., 2012)

Respondents complete a 5-point Likert scale for each item (1 (Strongly Agree) to 5 (Strongly Disagree)).

### **The Positivity Scale**

1. I have great faith in the future.
2. I am satisfied with my life.
3. Others are generally here for me when I need them.
4. I look forward to the future with hope and enthusiasm.
5. On the whole, I am satisfied with myself.
6. At times, the future seems unclear to me (reverse scored).
7. I feel I have many things to be proud of.
8. I generally feel confident in myself.

APPENDIX F

PERFORMANCE ANXIETY INVENTORY  
(NAGEL ET AL., 1981, 1989)

## Performance Anxiety Inventory (Nagel, Himle, &amp; Papsdorf, 1981, 1989)

	<i>Almost Never</i>	<i>Some- times</i>	<i>Often</i>	<i>Almost Always</i>
1. I feel confident and relaxed while performing before an audience	1	2	3	4
2. While giving a performance, my hands are cold	1	2	3	4
3. Thinking about the evaluation I may get in a performance interferes with my performance	1	2	3	4
4. If I make a mistake, I usually panic	1	2	3	4
5. During a performance, I find myself thinking about whether I'll even get through it	1	2	3	4
6. The harder I work in preparing for a performance, the more likely I am to make a serious mistake	1	2	3	4
7. Thoughts of doing poorly interfere with my performance	1	2	3	4
8. I feel very jittery when giving an important performance	1	2	3	4
9. Even when I am well-prepared for a performance, I feel very anxious about it	1	2	3	4
10. I start feeling very uneasy just before getting feedback on my performance	1	2	3	4
11. During performances, my hands sweat	1	2	3	4
12. I wish performances did not bother me so much	1	2	3	4
13. During my performance, I am so tense that my stomach gets upset	1	2	3	4
14. I seem to defeat while working on important performances	1	2	3	4
15. I feel very panicky when I approach an important performance	1	2	3	4
16. If I were to take an important performance examination (jury), I would worry a great deal before taking it	1	2	3	4
17. During performances, I find myself thinking about the consequences of blanking	1	2	3	4
18. I feel my heart beating very fast during performances	1	2	3	4
19. As soon as a performance is over, I try to stop worrying about it, but I just can't	1	2	3	4
20. During a performance, I get so nervous that I blank	1	2	3	4

APPENDIX G  
MUSICAL ABILITIES BELIEFS ASSESSMENT



Assessment for participants of current perceived musical skills on different musical beliefs on confidence, self-efficacy, self-satisfaction, and musicianship comprised of 5-point Likert scales (strongly agree — strongly disagree)

1. I believe myself to be a good musician
2. I am confident in my abilities as a musician
3. I am confident in my abilities as a person
4. I believe that I can put on a great performance
5. I believe in my musical talents, even when others might not
6. I believe mistakes are learning experiences
7. I trust myself to be resilient to denial and judgement
8. I know not being chosen for a role does not reflect upon my musicality or musical abilities
9. I can overcome any obstacle thrown at me
10. I am confident that I will succeed as a musician
11. I am motivated to continue to make music, even after graduation
12. Making music makes me happy, it is something I look forward to doing everyday

APPENDIX H

MEASUREMENT OF SELF-ACTUALIZATION INDEX  
(JONES & CRANDALL, 1986)

Measurement of Self-Actualization Index (Jones and Crandall, 1986) Rated on a 4-point Likert-type scale (1 (disagree), 2 (somewhat disagree), 3 (somewhat agree), and 4 (agree)).

- 1. I do not feel ashamed of any of my emotions.
- 2. I feel I must do what others expect me to do.
- 3. I believe that people are essentially good and can be trusted.
- 4. I feel free to be angry at those I love.
- 5. It is always necessary that others approve of what I do.
- 6. I don't accept my own weaknesses.
- 7. I can like people without having to approve of them.
- 8. I fear failure.
- 9. I avoid attempts to analyze and simplify complex domains.
- 10. It is better to be yourself than to be popular.
- 11. I have no mission in life to which I feel especially dedicated.
- 12. I can express my feelings even when they may result in undesirable consequences.
- 13. I do not feel responsible to help anybody.
- 14. I am bothered by fears of being inadequate.
- 15. I am loved because I give love.

**For items 2, 5, 6, 8, 9, 11, 13, and 14:**

The assignment of points is 4 for an answer of 1, 3 for an answer of 2, 2 for an answer of 3, and 1 for an answer of 4.

**For all remaining items:**

The assignment of points corresponds to the answer (1 point for an answer of 1, 2 for an answer of 2, etc.)

**Interpreting Results:**

A score will be between 15-60. The higher the score, the greater the likelihood that the person is Self-Actualized.

APPENDIX I  
POST-INTERVENTION INTERVIEW QUESTIONS  
AND PROCEDURE

Participants were asked to schedule a follow-up interview post-intervention with me via Qualtrics by selecting days and times that worked best for their schedule. Each participant was then assigned a time to meet in a particular classroom in Frasier Hall at the University of Northern Colorado for their individual interview.

The post-intervention interview questions were as follows:

1. What were your overall impressions of the *Maslow for Musicians* program? How did you feel about the navigation process?
2. Do you believe there were any noticeable changes to you, as a musician, after using the *Maslow for Musicians* program?
3. How confident do you feel in your music making at this point in time? Looking back, how do you believe your confidence level has changed, if at all, over the past five weeks?
4. Did you notice any differences between the levels of the Hierarchy completed for a particular week and your weekly performance? Were you more satisfied (or not at all) with your performance the higher you went on the Hierarchy?
5. Do you feel that using the *Maslow for Musicians* program helped making music more meaningful to you as a musician?
6. Has your musical fulfillment and/or satisfaction changed at all over the past five weeks?
7. How do you feel your musical progress has advanced (if at all) over the past five weeks? Do you believe the program helped in this progress?
8. What are your impressions about the last level of the Hierarchy (Self-Actualization) and what does it mean to you both as a person and as a musician? Do you believe to have achieved musical Self-Actualization over the past five weeks?

After interviews were completed, each participant that completed the entire study was entered into a drawing for 1 of 5 \$10 gift cards. The names of the participants were entered into a randomized generator and five winners were picked at random.