International Journal of Music and Performing Arts
June 2016, Vol. 4, No. 1, pp. 7-20
ISSN: 2374-2690 (Print) 2374-2704 (Online)

Published by American Research Institute for Policy Development
DOI: 10.15640/ijmpa.v4n1a2
URL: https://doi.org/10.15640/ijmpa.v4n1a2

Mental Skills Training for Musicians

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Abstract

While musical skills are necessary for successful musical performances, mental skills play an equally important role. The primary concern of the two surveys reported upon in this paper is the extent to which musicians employ the necessary mental skills for performing their best under pressure. In Study 1, 78% of musicians expressed an inability to perform at desired levels and 71% indicated a lack of awareness of the mental skills necessary to improve their performances. In Study 2, 98% of prospective university music majors indicated that they would like to improve their mental skills and 67% indicated they would like more information about acquiring these skills. Data from the current surveys and the knowledge that the necessary mental skills can be learned suggest that music school curricula should include various opportunities to learn mental skills as an integral part of the music education of all students. In addition, assessing prospective music majors could help faculty determine which mental skills are most needed. This training needs to be proactive, systematic, and available to all students—not just for those who begin to struggle. A primary conclusion to be drawn from these surveys is the need for mental skills training for musicians.

Keywords: mental skills, fixed and growth mindset, outcome- or process-oriented focus, self-talk, and music self-efficacy

Introduction

Music teachers work diligently to provide high-quality instruction and this often results in excellent student performances. However, some students face mental or psychological challenges that interfere with their ability to perform at optimal levels (Kenny, 2011; Kenny, Driscoll, & Ackermann, 2014; Lehmann, Sloboda, & Woody, 2007; Papageorgi & Welch, 2014).These mental challenges can include a lack of confidence, unrealistic expectations that their performances should be perfect, an ineffective attitude or mindset, the lack of or a misplaced focus, ineffective beliefs, or negative self-talk patterns(Armbrecht 2012; Osborne, Greene, & Immel, 2014).

As a result of challenges such as these, students often report experiencing music performance anxiety, having difficulty performing well under pressure, and, at times, even wanting to give up entirely (Dews & Williams 1989; Kaspersen & Goetestam, 2002; Kenny, 2011; Steptoe & Fidler, 1987; Wesner, Noyes, Jr., & Davis, 1990; Williamon & Thompson, 2006). From their perspective, music teachers may experience frustration when students who are seemingly prepared have difficulty performing well. Although nothing can replace excellent musical preparation, some of the challenges that performers face will not be solved by musical preparation alone. Musicians, like other elite performers, need effective mental skills and strategies in order to accept and utilize instruction and feedback, incorporate new skills, practice these skills, persist through difficult times, and perform effectively and expressively (O'Neill, 2011).

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When students perform in public, they often experience significant pressure that, in turn, places demands on their mental and physical health (Ackermann et al., 2012). Some evidence supports the notion that conservatory students experience even greater stress than professional orchestral musicians (Osborne et al., 2014; Steptoe & Fidler, 1987) and up to 70% of orchestral musicians experience music performance anxiety (MPA) that negatively affects their performances (James, 1998).

Wesner et al. (1990) reported that more than 20% of college music students experience MPA, leading to significant stress with consequent negative effects on performances. However, Tamborrino (2001), in a more recent study, reported that 97.1% of students have experienced performance anxiety before a performance, and 86.5% have experienced performance anxiety during a performance. A little more than a third of students experiencing MPA seek help and often they turn to their private instructors (Dews & Williams, 1989).

According to Kenny (2011), an optimal or peak performance, "is determined by a complex interaction between person characteristics, task characteristics, and performance demands and setting" (p. 140). In the two studies reported in this article, I chose to focus on person characteristics, to use Kenny's phrase, and the demands on the performers' mental health, rather than on task characteristics and performance demands. The person characteristics included in the second study are the performer's general attitude or mindset, which often influences whether focus is on the process or the outcome of efforts, self-talk patterns, and musical self-efficacy. The following sections contain brief explanations of fixed and growth mindset, outcome- or process-oriented focus, self-talk, and self-efficacy.

1.1. Fixed and Growth Mindset

Musicians' attitudes, or mindsets, are a set of beliefs that have an important influence on both performer and performance. This set of beliefs is the lens through which musicians view themselves, their performing, and their world. It helps them decide what to pay attention to, how to interpret or draw meaning from their experiences, how to feel, how to cope or which strategies to choose in order to cope, what to consider motivating, helpful, or effective, and what kinds of goals to pursue (Halvorson, 2010). One of the world's leading motivation researchers, Carol S. Dweck (2000), has found that we all tend toward one of two mindsets—a fixed or a growth mindset. In the fixed mindset, people believe their intelligence and abilities are fixed traits that cannot change. In the growth, mindset people believe that their intelligence and abilities are something they can cultivate through effort and the use of effective strategies (Bandura & Dweck, 1985; Dweck & Leggett, 1988). Those in the fixed mindset tend to avoid challenges, give up easily, view effort as futile, ignore useful negative feedback, and are often threatened by others' successes. Those in the growth mindset tend to embrace challenges, persist in the face of setbacks, see effort as the path to mastery, learn from criticism, and are inspired by others' successes.

There are many pressures on performers to think they have to prove their abilities to others. Student musicians are frequently being evaluated or judged. This can cause them to care a great deal about appearing talented and proficient. Musicians with the fixed mindset may often views goals, lessons, and performances as opportunities to receive validation or prove their ability, likeability, or worth. O'Neill (2011) uses the term 'maladaptive motivational patterns' to describe fixed mindset thinking. Research has shown that, much like studies performed by Dweck (2008) with students in early school years; 'good' students may not start seeing the negative effects of the fixed mindset until later when challenges and difficulties become more pronounced. It is then that music students can begin to display helpless behavior and start avoiding challenges or even withdraw effort (O'Neill, 2011).

1.2. Outcome- or Process-Oriented Focus

Researchers have identified two cognitive styles people use when dealing with mental challenges: outcome- and process-oriented thinking (Pham & Taylor, 1999). Those who engage in outcome-oriented thinking focus on what they want to achieve or the end state. In contrast, those who utilize the strategy of process-oriented thinking focus on the means rather than the ends; that is, they pursue a logical progression of steps that lead to an eventual outcome. Taylor and colleagues (1998) demonstrated that process-oriented learners improved significantly more in cognitive tasks and learning motor skills than outcome-oriented students did. There is very little research on the efficacy of process versus outcome focus for musicians. However, when musicians participate in performances, competitions, and auditions it is natural to engage in outcome-oriented thinking because they care a great deal about and have invested a good amount of energy in achieving a good result. Unfortunately, many times this desired result, or outcome, is outside of their immediate control.

Focusing on what is outside of their control is a major cause of heightened anxiety and tension. Conversely, focusing on what is within one's control is the result of having the mental discipline to stay focused on thinking that is geared towards immediate efforts and activities (Hermansson & Hodge, 2012). In studies of elite athletes, process-oriented thinking was found to increase the likelihood of a desired outcome (Kingston & Hardy, 1994), to become an integral strategy for automaticity in skill acquisition (Hardy, Jones, & Gould, 1996), and may decrease the incidence of anxiety in high pressure situations (Kingston, Hardy, & Markland, 1992).

1.3. Self-Talk

There is a direct correlation between self-confidence and success. Sports psychologists have studied the effects of self-talk on athletes' self-confidence and their performance, finding that the key to cognitive control is self-talk. Confident athletes think about themselves and their performance in different ways from those who lack confidence. The self-talk of the confident athlete often leads to enabling feelings and enhanced performance (Williams, 2010).

Clark, Lisboa, and Williamon (2014) found that, much like athletes, musicians were likely to engage in negative self-talk when things were not going well during a performance and that these denigrating comments contributed to further mistakes. In this study, they also found that musicians felt they had difficulty controlling negative self-talk and expressed concerns about how to regain focus and concentration. Weiss (2008) evaluated a self-talk intervention on adjudicated musical performances and found that musicians who received instruction in how to incorporate positive self-talk demonstrated a significant increase in confidence and a significant decrease in MPA when compared to students who did not receive such training.

1.4. Self-Efficacy

Bandura (1997) defined self-efficacy as "the beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). In other words, those who have confidence that they have the skills necessary to perform well, have high self-efficacy. Self-efficacy is related to MPA in that students who have low self-efficacy are likely to experience greater anxiety (Bandura, 1977, 1982; Jerusalem & Schwarzer, 1992). Conversely, higher self-efficacy has been shown to have a positive effect on overall achievement in music assessments.

In studies where music students between the ages of 9 and 18 were asked to complete a questionnaire an hour before a performance examination, researchers found that the strongest predictor of success was self-efficacy (McCormick & McPherson, 2003; McPherson & McCormick, 2006). This was true not only for the examination itself but also for the practice sessions. Based on these results, the authors called for additional research on the effects of self-talk before, during, and after musical performances.

Person characteristics that foster optimal and enjoyable performing in musicians include growth mindset, a primarily process-oriented focus, and effective self-talk and high music self-efficacy. Although it seemed apparent that musicians need mental skills training to be aware of and improve in these specific ways, additional information was lacking on the extent of this need and on the openness of students to receiving it. Therefore, Study 1 was designed to assess the mental skills necessary for performing at peak levels and Study 2 assessed the person characteristics of incoming university music majors.

2. Study 1: Assessing Mental Skills Necessary for Performing At Peak Levels

In 2010, sport psychology expert Dr. Patrick Cohn and I developed an informal survey for musicians entitled, Mental Skills Necessary for Performing at Peak Levels, in order to determine what they believed was standing between them and their best performances. This survey was developed by adapting a previous questionnaire Dr. Cohn had used with athletes for use with musicians. Links to an online survey were posted on Dr. Cohn's website (www.peaksports.com), my website (www.musicpeakperformance.com), and in an announcement on the National Association of Teachers of Singing website (www.nats.org).

Over several years, nearly 500 musicians have completed the survey (N = 499). Respondents identified themselves as a/n instrumentalist (n = 180/36.1%), singer (n = 148/29.7), pianist (n = 70/14%), university teacher (n = 52/10.4%), private teacher (n = 39/7.8%), or coach accompanist (n = 10/2%). Fewer than 30% of respondents felt they were very (20.4%) or extremely (8.6%) familiar with the mental skills that lead to peak performing, with another 30% unfamiliar (21.6% not very and 8% extremely unfamiliar) and 41% somewhat familiar. Only 22% of respondents rated their ability or the ability of their students to perform well under pressure as superior (4.8%) or excellent (17.1%). The remainder of responses was divided between good (39.6%), average (16.5%), fair (11.8%), poor (9.2%), and the worst (1%). Another question was, "What are your (or your students') top mental challenges?" (With two or more selections allowed). The top six responses were:

- Worry too much about what others think (46.4% of respondents)
- Performance anxiety or fear that affects performance (42.5%)
- Lack of confidence or self-doubt (39%)
- Fear of failure (35%)
- Lack of trust in learned skills (35%)
- Perfectionism or obsession with technical details (over analysis) (34.6%).

Collectively these findings indicate that a large number of musicians are unable to perform as well as they wish under pressure and that many of them are unfamiliar with the mental skills necessary to perform at peak levels. Interestingly, 40.4% of respondents indicated that they did not know how to use mental strategies to help them perform better. Further, they were interested in overcoming the following mental challenges (with three or more choices allowed): 'staying calm after mistakes' (52.3% of respondents), 'managing pre-performance jitters or performance anxiety' (49.2%), 'improving trust in learned skills' (49.7%), 'improving self-confidence or keeping it high,' (48.8%), and 'coping with perfectionism and over-analysis (45.5%).

It was clear from these results that many musicians feel their lack of mental skills training hampers their performances but are unaware of how to acquire the skills necessary to improve the situation. Based on these results, I chose to conduct a follow-up study to investigate the perceptions of incoming university music students on these topics. Accordingly, Study 2 was planned.

3. Study 2: Mental Skills Assessment of Incoming University Music Majors

The specific aim of Study 2 was to collect the responses of a population of prospective music majors applying for university acceptance to determine their level of mental preparedness by exploring their perceptions of four key areas: mindset tendency—fixed or growth, focus tendency—process or outcome, self-talk patterns, and self-efficacy in music. The four objectives of this study were as follows:

1. To determine which person characteristics and mental skills prospective students currently possess;
2. To determine which person characteristics and mental skills prospective students need to acquire or shift;
3. To determine how many students would be interested in mental skills training; and
4. To determine whether mental skills assessment of prospective music majors can provide valuable information to faculty in order to increase student success.

Based on the results of Study 1 and to satisfy the main objectives, research questions for Study 2 included the following:

1. When performing or preparing to perform, what percentage of prospective music majors experience music performance anxiety?
2. When performing or preparing to perform, what percentage of prospective music majors are motivated by affixed versus growth mindset?
3. When performing or preparing to perform, what percentage of prospective music majors have an outcome focus versus a process focus?
4. When performing or preparing to perform, what percentage of prospective music majors perceive that they engage in self-talk during negative, positive, and neutral situations?
5. When performing or preparing to perform, what percentage of prospective music majors have a low versus high self-efficacy in music?

3.1. Methodology

Approval for this study was granted by the University of Texas at San Antonio (UTSA) Institutional Human Subjects Research Review Board (approval number 15-092E). Prior to launching the survey, I obtained a waiver of documentation of consent for development of an anonymous online survey. Accordingly, I developed a survey based on the previous work with Cohn, along with some statements adapted from the work of Dweck and colleagues (Dweck, 2006; Dweck, Cjiu, & Hong, 1995) and Halvorson (2010). Modifications were made based on input from several experienced music professors. The survey was pilot tested with a small group of first-semester freshmen music majors ($N = 10$) and final revisions were made. Participants (N=118) were recruited from 2015 and 2016 UTSA music major applicants. Participants had to be at least 18 years of age and be UTSA music major applicant preparing music audition. Recruitment statements were placed on the UTSA auditions webpage and access to the survey was provided to prospective students by email. Students were assured of confidentiality and that answers to this survey would have no bearing on UTSA acceptance decisions.

Using the online survey tool Survey Monkey (https://www.surveymonkey.com), participants began by answering demographic questions that pertained to consent for allowing data usage, age, private instruction prior to college, and if having taken private lessons, for how long (Q1-4).

Participants were also asked how nervous they were when thinking of their UTSA audition (Q5). If answering "more than a little" nervous, participants were asked to describe how they experience 'nerves' and why they think they feel this way (Q6). The next question addressed participants' motivational tendency (Q7). Using a Likert scale, participants were asked to respond with "Very True," "Somewhat True," or "Not True at All," to 12 statements regarding their general mindset or implicit theories of the malleability of human characteristics— fixed or growth— that tend to motivate them to prove or improve their abilities. The 12 statements were drawn from the research of social psychologist and Associate Director of the Motivation Science Center at the Columbia Business School, Heidi Grant Halvorson (2010). The next two questions (Q8-9) were designed to assess participants' focus tendency— process or outcome. In Q8, participants were presented with three pairs of statements following the stem, "When you are preparing to learn something new, which is more like you?" In Q9, participants were presented with another set of three pairs of statements following this question, "When you are preparing to perform on your instrument or to sing, which is more like you?"

The next question (Q10) addressed self-talk patterns by presenting 15 statements that participants were asked to respond to with frequency of occurrence: "Never," "Seldom," "Sometimes," "Often," or "Very Often." Statements were constructed to explore the extent to which respondents engage in self-talk during negative, positive, or neutral situations. In the next question (Q11), participants were asked to what extent they agreed with nine statements designed to assess their musical self-efficacy or the strength of their beliefs in them and in their abilities as musicians. To conclude, participants were asked to respond with "Yes," "No," or "I don't really know" to two more statements—"I would like to improve my current mental skills to prepare and perform at peak levels" (Q12) and "I would like information about mental skills training that I could use to improve my mental skills" (Q13).

3.2 Results

A total of 184 participants responded to the survey; however 57 surveys were eliminated because respondents were under the age of 18. Of the 127 surveys remaining, 118 were complete (93% completion rate).As expected in any survey of prospective undergraduates, 69% of respondents were 18. The majority of respondents reported to have taken private lessons prior to college for a period ranging from less than 6 months to 8 years.

Questions 5 and 6: Music Performance Anxiety

When thinking of their UTSA audition (Q5), 11% reported no nervousness and 41% reported being "a little" nervous, while 48% of participants reported being "more than a little" (31%) or "really nervous" (17%).Even though more than half reported little or no nervousness, when asked to explain why they think they feel this way, 93% of participants answered with responses including statements such as:"…this is a big deal." "What if things go wrong?" "Nerves are just a reminder that I care." "…I'm afraid to mess up."

A content analysis of the open-ended responses in Q6—"If you answered Q5 with "A little," "more than a little," or "I'm really nervous," please describe how you experience "nerves" and why you think you feel this way"—revealed that 12% of participants described scenarios with positive self-talk or excitement, descriptions of self-coaching or self-soothing and another 12% were neutral in their statements.

However, 76% of participants responded with language that clearly indicated a focus on the outcome, expectations that were too high or strict, negative self-talk, low self-efficacy, and desires for perfection.

Question 7: Fixed or Growth Mindset

Q7 was designed to assess the students' basic mindsets, whether fixed or growth. Participants responded to 12 statements along a 10-point scale with "Not true at all" anchoring one end, "Somewhat true" in the middle, and "Very true" anchoring the other end. As shown in Table 1, responses showed tendencies toward both mindsets. The majority of students reported fixed mindset tendencies when asked about comparing themselves to others, caring what others think of them, having others view them as talented or smart, and focusing on demonstrating their ability. However, the majority of students reported growth mindset tendencies when asked about their desire to improve and grow, their desire to seek opportunities to grow, and surrounding themselves with people who encourage growth.

Table 1: Mindset Tendencies: Fixed or Growth

Statement	Percentage of Responses Indicating Either "Somewhat" or "Very True"
Statements reflecting a fixed mindset:	
It is important to me to do well compare to others.	86.07%
I really care about making a good impression on other people.	95.91%
It is important to me to show that I am smart, talented, and capable.	97.54%
When I am with other people, I often think about what they think of me and how I am being perceived.	82.78%
I feel good about myself when I know that other people like me.	92.63%
I try to do better than others I know.	78.70%
I am usually focused on demonstrating my ability.	90.17%
Statements reflecting a growth mindset:	
I like having friends who can teach me something about myself, even if it isn't always positive.	96.07%
I am always seeking opportunities to develop new skills and acquire new knowledge.	99.19%
I strive to have open and honest relationships with my friends and acquaintances.	96.72%
I strive to learn and improve myself.	99.18%
I like to be in relationships that challenge me to change for the better.	96.73%

Note: Statements are re-arranged from their original presentation order to be placed in fixed or growth mindset groups.

Questions 8 and 9: Outcome or Process Focus

The next two questions concerned whether participants' focus is on the outcome or on the process of playing or singing. Theywere asked to determine, "Which is more like you?" tothe following two questions: "When preparing something new…"(Q8) or "When preparing to perform…."(Q9); each question was followed by three pairs of opposing statements. As seen in Table 2, when asked about preparing to learn something new, participants reported tendencies toward a process rather than an outcome focus.

When asked about preparing to perform, participants' responses to the first paired statement were mixed; however, responses to the other two pairs clearly reflected a process focus. Overall, the majority of participants reported a tendency toward a process focus in both learning and performing situations.

Table 2: Focus Tendency: Outcome or Process Focus

	A is most like me most of the time		B is most like me most of the time		
When preparing to learn something new, which is more like you?					
A. What if I fail? -or-	7%	17%	25%	**20%**	**31%**
B. It is exciting to have a new challenge.					
A. I am going to enjoy putting in effort on this! –or-	**33%**	**25%**	22%	13%	7%
B. What if I make a fool of myself?					
A. What will people think of me if I don't do well? –or-	8%	12%	26%	**27%**	**27%**
B. I love trying and learning new things.					
When preparing to perform on your instrument or to sing, which is more like you?					
A. I am usually excited and focus on what I am doing. –or-	**18%**	**25%**	22%	19%	16%
B. I am usually nervous and think about messing up.					
A. I know I can manage, even if I make a mistake. –or-	**40%**	**30%**	9%	11%	10%
B. I worry about making mistakes.					
A. I can focus on what I need to do to perform well. –or-	**40%**	**25%**	14%	11%	10%
B. I worry about what others will think of how I perform.					

Note: Boldfaced percentages indicate the preponderance of A or B responses.

Question 10: Self-Talk

In Q10 respondents addressed the extent to which they engaged in self-talk during negative, positive, or neutral situations. As can be seen in Table 3, participants were more likely ("Often" or "Very Often") to engage in self-talk than not ("Never" or "Seldom") in two negative situations and not likely to engage in self-talk in two negative situations. In contrast, participants tend to engage in self-talk in all positive and neutral situations.

Table 3: Self-Talk Patterns

How often do the following situations cause you to "talk to yourself"?	Never	Seldom	Sometimes	Often	Very Often
Negative situations					
When I should have done something differently.	3%	2%	39%	**40%**	**16%**
When I am imagining what other people are thinking about me.	**11%**	**32%**	25%	19%	13%
When I feel ashamed of myself or the way I performed.	**18%**	**27%**	20%	22%	13%
When I am really upset with myself.	9%	29%	20%	**16%**	**26%**
Positive situations					
When something good has happened to me.	7%	13%	32%	**24%**	**24%**
When I am really happy with my performance/myself.	7%	15%	23%	**38%**	**17%**
When I am proud of myself or the way I performed.	5%	14%	28%	**29%**	**24%**
When I want to reinforce myself for doing well.	3%	18%	25%	**29%**	**25%**
Neutral situations					
When I need to figure out what to do or say.	2%	7%	24%	**34%**	**33%**
When I replay something that someone has said to me.	4%	13%	29%	**21%**	**33%**
When I am mentally exploring a possibility.	3%	3%	26%	**24%**	**43%**
When I try to anticipate what someone will say and how I will respond.	3%	19%	23%	**29%**	**26%**
When I am giving myself instructions about my playing/singing.	0%	9%	24%	**28%**	**40%**
When I want to remind myself of what I need to do.	0%	4%	16%	**47%**	**33%**
When I replay something that I have said to someone.	8%	15%	34%	**22%**	**21%**

Note: Statements are re-arranged from their original presentation order to be placed in self-talk patterns. Boldface indicates whether "Often" plus "Very Often" or "Never" plus "Seldom" resulted in higher percentages.

Question 11: Self-Efficacy

When surveying participants' music self efficacy, the majority of responses to all nine statements of this question indicated a strong belief in their ability to perform well, to set important goals, to meet challenges, to persist in the face of mistakes or other performance problems.

Table 4: Musical Self-Efficacy

	Completely Disagree				Completely Agree		
I am confident that I can give a successful performance.	0%	0%	3%	7%	**27%**	**29%**	**34%**
I set important goals to attain during performance, but I usually cannot achieve them.	**18%**	**26%**	**27%**	12%	8%	6%	3%
I am likely to avoid difficulties and challenges during the performance itself.	**15%**	**17%**	**13%**	27%	11%	13%	4%
If I think of a performance as being too stressful, I usually cannot perform well.	**25%**	**20%**	**15%**	15%	8%	10%	7%
If something unexpected happens during the performance, I can handle it well.	1%	4%	6%	10%	**25%**	**30%**	**24%**
I am likely to avoid performing if the music looks or sounds too difficult for me.	**47%**	**22%**	**9%**	12%	7%	2%	1%
I feel insecure about my playing/singing for my performance.	**25%**	**24%**	**13%**	14%	8%	7%	9%
I am likely to give up easily during the performance.	**25%**	**24%**	**13%**	14%	8%	7%	9%
I am capable of dealing with problems or mistakes that might come up during a performance.	0%	3%	3%	8%	**17%**	**25%**	**43%**

Note: Boldfaced percentages reflect a majority of agreement/disagreement responses with each statement.

Questions 12 & 13: Mental Skills Training

In Question 12, participants were asked whether they would like to improve their current mental skills to prepare and perform at peak levels. Ninety-eight percent of participants (116 of 118) indicated "Yes" and 2% (2) participants indicated "I don't really know." None of the participants indicated "No." The last question (Q13) asked participants whether they would like information about mental skills training to improve their mental skills. Sixty-seven percent of participants indicated "Yes," 17% indicated "I don't really know," and 16% indicated "No."

4. Discussion

The primary concern of the two surveys reported upon in this paper was the extent to which musicians possess person characteristics and employ mental skills necessary for performing at peak levels, including fixed or growth mindset, outcome- or process-oriented focus, self-talk, and self-efficacy. In Study 1, respondents (N = 499), including instrumentalists, singers, pianists, university teachers, private teachers, and coach accompanists, indicated that they were largely unfamiliar with these mental skills. The top challenges they faced were worrying too much about what others think, experiencing fear, or performance anxiety, lacking confidence, fearing failure, lacking trust in learned skills, and dealing with perfectionism. A significant proportion of respondents (40.4%) stated that they did not know how to use mental strategies to improve their performances. A conclusion from this survey is that many musicians lack mental skills necessary for performing at peak levels, but are unaware of how to acquire these skills.

As a way of following up the results of Study 1, a second survey was conducted with students applying to a university for acceptance into a music major program. Respondents (N = 118) provided answers to questions addressing specific person characteristics. Although more than half (n = 52%) reported only a little or no nervousness, the follow-up responses to "why do you think you feel this way" indicated that 76% of all respondents used language that contradicted this positive outlook.

There was a clear focus on outcome, on unreasonably high expectations, on negative self-talk, on low self-efficacy, and on perfectionism. Thus, these prospective music majors may not be quite as confident in their mental skills as they seemed to be from the responses concerning nervousness.

In questions concerning additional person characteristics, responses tended toward a growth mindset, process-oriented focus, and high self-efficacy. These responses appear to be contradictory to the results of Study 1. That is, in the first survey, a large number of respondents indicated a tendency for fixed mindset, outcome-oriented focus, and low self-efficacy. Since the respondents in Study 1, who were by and large more experienced than the incoming freshman of Study 2, generally indicated a fixed mindset, how would one account for the shift? While this is admittedly speculation, it seems reasonable to posit the notion that high school seniors, or those preparing to enter college, are enthusiastic and optimistic. While they may be nervous about an upcoming audition, they are also filled with optimism and expectations that they will do well. They may have a strong sense of confidence in their ability to perform at a high level.

However, as they progress through a music degree program, these eager students will face many more challenges, and assessments, such as weekly private lessons, end of semester juries, auditions for ensemble placement, opera roles, and the like. As challenges and expectations for elite skill acquisition increase, it is reasonable to suspect that the shift we see in the two studies takes place. In the absence of specific mental skills training, it very well may be that positive, confident attitudes weaken and begin to shift toward fixed mindset, outcome-oriented focus, and low self-efficacy. Longitudinal research that tracks music students throughout their undergraduate years would be important to move from speculation to a clearer understanding of this process. Beyond that, it is possible that the cycle repeats itself for many who pursue a graduate degree or are in their first years of a professional career. The issue of self-talk (Q10) was omitted in the foregoing discussion. In the current survey, it was apparent that respondents engage in self-talk during negative, positive, and neutral situations. The nature of that self-talk was not addressed directly in this survey, and further research is warranted. However, the content analysis of Q6, which allowed for open-ended explanations of how they felt about their nervousness in regard to the upcoming university audition, may provide some insights.

Although the question does not specifically address self-talk, many of their statements seem akin to what one might say to oneself. Of the 110 participants who expressed at least some degree of nervousness, many made statements such as the following that appear to reflect negative self-talk (italics added):

- "I am constantly *thinking* about my audition pieces … I am nervous because this is the most important audition and my first choice school."
- "I start to get nervous because I start *over thinking* things."
- "… It's been very hard for me to stop *judging* myself so harshly."
- "… I can start having a more rapid heart rate if I'm not *thinking* about staying calm."
- "I began to *think* of all [the] things that can go wrong and psych myself out."
- Nervousness "comes from *self doubt* … as well as *worrying* things may go wrong."
- "Nerves, in this case, is[sic] more like anxiety. It's something I *think* about constantly and stress over."
- "I get a little anxious and I just *think* about what I am about to do over and over."
- "My arms, hands, and legs shake. This is possibly due to *over thinking*."
- "I think it [nervousness] comes from the *thought* that your performance is being judged …"

- "When I feel nervous most of it is usually before I perform, as I start to *think* about the performance I start to get more anxious."
- "When I get nervous my mind goes blank and everything that I've practiced for months goes down the drain. I *over analyze* and *criticize* my performance [so] that when I get out of the room I'm *doubting* myself and I lose all confidence in what I just did."
- "When it comes to auditioning, I have a huge tendency to *over think* things rather than stay relaxed and calm.

To reiterate, although the specific direction of self-talk was not assessed in Q10, a content analysis of statements regarding nervousness about the upcoming university audition, indicates a fairly high degree of negative self-talk. This also highlights the disconnect between the apparent lack of nervousness reported by 52% of respondents and the actual feelings expressed. Perhaps the clearest conclusion to be drawn from these two surveys is the need for mental skills training for musicians. In Study 1, many performing musicians and teachers expressed an inability to perform at desired levels and a lack of awareness of the mental skills necessary to improve their performances. In Study 2, 98% of participants (116 of 118) indicated that they would like to improve their mental skills and 67% indicated they would like more information about acquiring these skills. A brief review of the literature on mental skills training indicates that musicians may have much to gain from such learning opportunities.

James E. Loehr (1995), sport psychologist to world-class athletes like speed skater Dan Jansen and tennis stars Monica Seles and Jim Courier, calls mental skills training "toughness training." He defines it as the art and science of increasing one's ability to handle stress—physical, mental, and emotional—to become a more effective competitor. At least for athletes, he describes this training as "highly sophisticated and thoroughly proven method of perfecting" skills, while minimizing the risk of injury and emotional setbacks (p. xvii). In recent studies researchers found that even children with regular music practice, "can successfully use mental skills to reduce anxiety and improve the quality of their performance" (Hench, 2011, p. 385). Other studies with musicians have employed mental skills such as attention training and behavioral rehearsal (Kendrick, Craig, Lawson, & Davidson, 1982), self talk with relaxation (Stanton, 1994; Weiss, 2008), and visualization and guided imagery (Braden, Osborne, & Wilson, 2015; Esplen & Hodnett, 1999; Gratto, 1998).

In two recent investigations involving mental skills training programs, music conservatory students increased their self-awareness, confidence, and positive attitudes (Clark & Williamon, 2011; Osborne, Greene, & Immel, 2014). The vast literature supporting mental skills training for athletes and the few studies that have been implemented with musicians thus far seem to suggest that performers who learn appropriate mental skills may learn to better regulate and manage their music performance anxiety and may also become more motivated and learn to be more resilient (Osborne et al., 2014). These findings have important implications for all musicians. Unfortunately, according to performance psychologist Kate Hays (2002), mental skills training has not been widely applied within the performing arts.

Although further research is certainly warranted, data from the current surveys and the knowledge that the necessary mental skills can be learned suggest that music school curricula should include various opportunities to learn mental skills as an integral part of the music education of all students. Assessing prospective music majors could help faculty determine which mental skills are most needed. This would allow students to learn individually-relevant skills. In addition, music faculty can be trained and encouraged to incorporate effective mental skills techniques and strategies into classes, lessons, and ensemble rehearsals. This training needs to be proactive, systematic, and available to all students—not just for those who begin to struggle. Mental skills training have much to offer all musicians.

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