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Kelsey Elyse Platt
University of Iowa

Recommended Citation
Platt, Kelsey Elyse. "Developing metacognitive and self-regulated learning skills through reflective writing prompts." DMA (Doctor of Musical Arts) thesis, University of Iowa, 2016.
https://doi.org/10.17077/etd.9m0bstjb

DEVELOPING METACOGNITIVE AND SELF-REGULATED LEARNING SKILLS

THROUGH REFLECTIVE WRITING PROMPTS

by

Kelsey Elyse Platt

A thesis submitted in partial fulfillment
of the requirements for the Doctor of Musical Arts
degree in Music in the
Graduate College of
The University of Iowa

May 2016

Thesis Supervisor: Associate Professor Katherine Wolfe

Graduate College
The University of Iowa
Iowa City, Iowa

CERTIFICATE OF APPROVAL

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D.M.A. THESIS

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This is to certify that the D.M.A. thesis of

Kelsey Elyse Platt

has been approved by the Examining Committee for
the thesis requirement for the Doctor of Musical Arts degree
in Music at the May 2016 graduation.

Thesis Committee:　_____
　　　　　　　　　　Katherine Wolfe, Thesis Supervisor

　　　　　　　　　　_____
　　　　　　　　　　Anthony Arnone

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　　　　　　　　　　Alan Huckleberry

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　　　　　　　　　　Réne Lecuona

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　　　　　　　　　　Volkan Orhon

With thanks and praise to God.

In loving memory of my Abuelita.

To my sisters, Adri, Cari, and Morgan. Thank you for believing in this "little one."

To my parents, Bill and Gely, with all my love. Thank you for giving me the gift of music and for helping me share that gift with others.

"That little girl plays the way people used to walk, with her feet on the ground and her eyes on the starry heavens."

Nancy Huston
Prodigy

I would like to thank Bob Cook and Beth Oakes for creating a wonderful learning experience for me at the University of Iowa. Katie Wolfe, thank you for all of your patience and encouragement as I practiced, performed, and wrote; I am grateful for all you have taught me.

Thank you to my friends at Trinity Episcopal Church in Iowa City. Your warm fellowship created a second home for me and I am grateful for your kindness and encouragement.

Many thanks to the Philanthropic Educational Organization, who supported my final year of study. To Rachel Edwards, Renee Boldt, and all of the women of Chapter B in Appleton, WI: thank you for cheering me on every step of the way, your words of encouragement made the tough days easier.

Anna Reiser, you inspire me to be better in every way and I am so grateful for your friendship. Talking and sharing with you has helped me grow as a thinker and player.

Thank you to my mentor, Samantha George. I am grateful for the countless hours you have spent listening to me play and helping me improve. Your knowledge and wisdom has shaped my life as a musician. You are a model pedagogue and I aspire to teach with your enthusiastic and generous spirit. It is the greatest blessing to be your student.

For helping me find my way from the very beginning, all my thanks and love to Caroline Brandenberger.

Public Abstract

Effective practice determines the quality of a performance and it is essential to improving a musician's overall level of playing. Studies show that experts in the field of music display superior metacognitive skills, or the ability to think about one's thinking. Metacognition is an important skill that needs to be developed in order for a student to become a self-regulated, or independent learner. Effective practice can be improved by learning and developing metacognitive and self-regulated learning skills.

An important component of self-regulated learning is reflective thinking. Reflective thinking is a mental process that contributes to deeper learning experiences, improves problem solving skills, and enhances creativity. Reflective thinking can be stimulated with writing activities. Research and theories of reflective practices informed the creation of the Reflective Writing Prompts.

The Reflective Writing Prompts stimulate reflective thinking as they teach and develop metacognitive and self-regulated learning skills to make practice more effective. Each exercise prompts the student to think and write a response to questions focused on a specific skill. These prompts are based on research in music psychology and reflective thinking, with special focus on metacognition, self-regulated learning, practice habits, and reflective journaling. The pertinent studies and theories in these areas will be examined and explained in relation to each other. With this foundational knowledge in place, the Reflective Writing Prompts will be presented. The prompts are designed to support first or second year music students in their development as independent learners who practice effectively.

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I. The Necessity of Improving Practice

Introduction

In "Le carnaval des animaux," Saint-Saëns dedicates a movement to pianists. A musician could take offense at being lumped together with a bunch of animals if it were not so amusing. Why is this movement so funny? One humorous aspect of this movement is that it can produce an effect similar to that of slap-stick, especially if the performers embrace the theatrical potential of the music that has developed in performance practice. The two pianists who display their virtuosity in every other movement, are now playing at ineptitude, stumbling their way through "simple" scales. It is delightfully clever because the pianists' "efforts" are fake and everyone knows it. The irony of the scene is that the meager beginnings of every piano student, here the subject of mockery, can lead to the brilliant mastery of the instrument that Saint-Saëns puts on display in the rest of the concerto. This caricature of pianists works because the stereotypical cliché of a musician practicing scales for hours on end is well known. This movement makes an audience laugh and often enough it makes musicians smile at their own, early blunders. But taken out of its humorous context, this version of playing scales is no laughing matter. Teachers should cringe at this movement because it is not pretend; ineffective practice methods are the reality for many music students.

Along with training the ear, understanding music history and theory, learning skills to collaborate with others, and overcoming performance anxiety, practicing effectively is central to a musician's development. There are many different methods, tools, and skills that make practice effective; these include listening to a recording, playing slowly, working in small sections, playing hands separately, using a metronome or tuner, and watching oneself in a mirror. Students that practice effectively usually achieve higher marks than students who fail to do so. According

to the reports of researchers studying the development of expertise, music education, and music psychology, the practice of less advanced students is typically qualitatively inferior to that of very advanced or expert players. Studies done in schools of music and conservatories show that the less advanced students typically rely on a few practice strategies that are limited in their effectiveness. Beyond good performances and success in school, there are many other benefits that result from practicing effectively. Researchers studying expertise development show that experts, who have practiced effectively over a long period of time, display a superior capacity to recognize patterns and solve problems quickly.

Helping students practice effectively can be challenging because there is often a gap in communication. Music psychologist Harald Jørgensen uses two related studies to convey the extent of this gap: in one study, 84% of applied teachers report that they spend time in lessons talking about effective ways to practice; in a related study, only 40% of students reported that their teachers spent time during their lessons talking about ways to practice.[1] Teachers are constantly surprised at the discrepancy between what they are teaching and what the student is actually learning. Another difficulty is that much of a student's learning happens without guidance and supervision. Countless times students come into their lessons having internalized a musical error or engrained a troublesome physical gesture. These circumstances and failures lead teachers to the following conclusion: students need to become better at teaching themselves. Although expressed in different terms, researchers in music education and music psychology come to a similar conclusion: students need to become better self-regulated learners.

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[1] Harald Jørgensen, "Strategies for Individual Practice," in *Musical Excellence: Strategies and Techniques to Enhance Performance*, ed. Aaron Williamon (Oxford: Oxford University Press, 2004), 99.

Self-regulated learning is thoughtful, motivated, and independent. The model of self-regulated learning recognizes three phases of learning relating to forethought, performance, and reflection. Students who are self-regulated learners typically outperform their peers who do not engage in this deeper level of learning. Researchers strongly advocate for methods to improve a student's capacity for self-regulated learning, stating that the most important skills for music students to learn are the skills related to self-regulated learning and metacognition, or the ability to think about one's thoughts. This priority has been set, but researchers have failed to explain the best approach to cultivating metacognitive and self-regulated learning skills in students. Without guidance and a clear pedagogical method, teachers struggle to help students improve these skills. This is evident in one study's report that most musicians do not believe their education helped them develop metacognitive and self-regulated learning skills.[2] Researchers call on teachers to use the information they have gathered to create and implement practical methods of instruction that develops metacognition and self-regulated learning skills.[3] I have answered that call by creating the Reflective Writing Prompts.

The Reflective Writing Prompts (RWPs) are based on the theory and practice of reflective journaling. Reflective journaling uses writing to stimulate reflective thinking, a mental process that facilitates deep learning. In higher education and professional settings, reflective journaling has been used in a variety of disciplines to improve learning and change behavior. The benefits of reflective journaling have been studied in the following fields: nursing, teacher training, writing, physics, and mathematics. There is one study on the effects of reflective

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[2] Nancy H. Barry and Susan Hallam, "Practice," in *The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning,* ed. Richard Parncutt and Gary E. McPherson (New York: Oxford University Press, 2002), 160.

[3] Gary E. McPherson and Barry J. Zimmerman, "Self-Regulation of Musical Learning: A Social Cognitive Perspective," in *The New Handbook of Research on Music Teaching and Learning*, ed. Richard Colwell and Carol Richardson (Oxford: Oxford University Press, 2002), 344.

learning journals in an ethnomusicology class, but no study has been conducted on the use of reflective journaling within an applied music setting.[4] There are no music methodologies that are based on reflective journaling. Jennifer A. Moon is an expert in reflective practices, having written two books on the subject, and neither of those texts does more than mention the possibility of using reflective journaling in the field of music, let alone the discipline of applied music. The Reflective Writing Prompts fill this void. Firmly grounded in the theories of reflective thinking, I have adapted expert recommendations and the best practices of reflective journaling to be effective in an applied music setting.

The RWPs are structured writing exercises that encourage reflective thinking, develop metacognitive and self-regulated learning skills, and improve the effectiveness of practicing. Each exercise is a set of prompts related to the same topic or directed towards the same goal. For example, one prompt focuses on planning a practice session according to the structure of a piece, another prompt encourages a student to create a practice strategy for a difficult passage, yet another prompt guides a student to evaluate her[5] process of learning a piece. The set of prompts address each phase of self-regulated learning: forethought or planning, performance, and evaluation. There is a final section of prompts that addresses issues relating to a student's ideas and beliefs about herself. The prompts are guided by my experience as a violinist and would be well suited for other string instruments. With some modifications, these prompts could work well for other instruments or vocalists as well. Reflective journaling can help musicians of all levels, but this set of prompts is appropriate for students who have a basic level of foundational musical

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[4] Katelyn Barney and Elizabeth Mackinlay, "Creating Rainbows from Words and Transforming Understandings: Enhancing Student Learning through Reflective Writing in an Aboriginal Music Course," *Teaching in Higher Education* 15, no.2 (April 2010): 161.

[5] For facility and consistency, I use feminine pronouns throughout this document when referring to a single individual of either gender.

knowledge and a fair amount of self-awareness, possibly music students in high school or college. Advanced writing skills are not required; the prompts encourage a free, flowing style of writing conducive to any writing level. RWPs are meant to be used as one would use an etude book. A teacher can assign a prompt that is appropriate for the student's needs and stage of development, modifying the questions when necessary to facilitate a better experience and response from the student. Like any good technique book, these prompts can be repeated to refine a skill or gain a deeper level of understanding.

The Reflective Writing Prompts are based on theories and data from the following fields: expertise development, music psychology, music education, self-regulated learning, metacognition, reflective thinking, and writing. It is easier to appreciate the potential benefits of using the Reflective Writing Prompts with an understanding of the concepts that are central to these fields. The rest of this chapter describes the problems associated with effective practice. The following chapters summarize the foundational knowledge upon which the Reflective Writing Prompts are built. Chapter Two describes the nature of effective practice and explains the model of self-regulated learning and metacognition. The third chapter describes learning journals and reflective thinking. Chapter Four explains the benefits of using structured writing prompts within an applied music setting to develop metacognitive and self-regulated learning skills. Chapter Five provides guidelines and recommendations for using the prompts and discusses the work that can be done in the future to test and measure their effectiveness. A brief set of guidelines and an example of a RWP in action precedes the set of prompts in Chapter Six. The Reflective Writing Prompts are divided into the following sections: Prompts for Planning, Prompts for Practice Strategies, Prompts for Evaluation, and Prompts for Oneself.

Comparing Novice and Expert Musicians

We begin by looking at the typical characteristics and practice behaviors of novice musicians as described by music psychology researchers. In the pertinent studies, a novice refers to a student who plays at a lower level, usually in late years of high school or early years in undergraduate programs. Studies consistently find the following traits in low performing students. One study shows that novices are generally less aware of their metacognitive activity.[6] They typically adopt a surface approach to learning music, resulting in a limited conception of the tasks necessary to improve their performance.[7] They typically fail to plan and evaluate their practice. In a study reported by music education scholars Andreas C. Lehmann and Harald Jørgensen, 50% of the participating students never planned their practice.[8] Novices use a limited number of practice strategies and do not always use them in the most appropriate way. The main practice technique of a novice is repetition, the benefits of which are limited.[9] These students are often unable to identify errors because they lack an aural representation against which to judge their performance and make corrections.[10] They do not stay focused on a task, waste a lot of their practice time, are inconsistent in practicing, and often fail to complete assignments.[11] All of these inferior practice behaviors can contribute to poor quality performances, a generally low level of playing, and slow rates of improvement.

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[6] Harald Jørgensen and Susan Hallam, "Practicing," in *The Oxford Handbook of Music Psychology*, ed. Susan Hallam, Ian Cross, and Michael Thaut (Oxford: Oxford University Press, 2009), 270.

[7] Susan Hallam, "The Development of Expertise in Young Musicians: Strategy Use, Knowledge Acquisition, and Individual Diversity," *Music Education Research* 3, no.1 (2001): 8.

[8] Andreas C. Lehmann and Harald Jørgensen, "Practice," in vol. 1 of *The Oxford Handbook of Music Education*, ed. Gary E. McPherson and Graham F. Welch (New York: Oxford University Press, 2012), 684.

[9] Nancy H. Barry, "A Qualitative Study of Applied Music Lessons and Subsequent Student Practice Sessions," *Contributions to Music Education* 34 (2007): 62.

[10] Jørgensen and Hallam, "Practicing," 269.

[11] McPherson and Zimmerman, "Self-Regulation," 338.

In comparison with novices, expert musicians show marked differences in the way they practice. In the relevant studies, an expert refers to a professional musician with a career based on high quality performances that has gained recognition on an international stage. The following attributes characterize most expert musicians. Experts have strategic plans to monitor and control their practice and performance.[12] They consistently exhibit the highest levels of planning.[13] This usually includes setting short and long term goals and executing intermediate steps to achieve those goals.[14] Expert musicians are skilled at managing their levels of attention, enabling them to focus on tasks in a way that optimizes improvement.[15] The music education scholars Gary E. McPherson and Barry J. Zimmerman state that experts "spontaneously invent increasingly advanced strategies to improve their performance."[16] These strategies are significantly more complex and abstract than those used by novice musicians[17] because experts have an advanced ability to create and manipulate mental representations of music.[18]

These two descriptions highlight the vast difference between expert and novice musicians, both in the overall level of achievement and in the nature of their practice. Admittedly, the differing levels of musical expertise is partly related to cumulative practice: experts have spent considerably more time practicing than novices. But this should not diminish the importance of effective practice. In the research that explores the relationship between practice and playing level, the concluding recommendation is always to improve the quality of

[12] McPherson and Zimmerman, "Self-Regulation," 335.
[13] Hallam, "Development of Expertise," 13.
[14] McPherson and Zimmerman, "Self-Regulation," 342.
[15] Andreas C. Lehmann and Jane W. Davidson, "Taking an Acquired Skills Perspective on Music Performance," in *The New Handbook of Research on Music Teaching and Learning*, ed. Richard Colwell and Carol Richardson (Oxford: Oxford University Press, 2002), 552.
[16] McPherson and Zimmerman, "Self-Regulation," 333.
[17] Linda M. Gruson, "Rehearsal Skill and Musical Competence," in *Generative Processes in Music: The Psychology of Performance, Improvisation, and Composition*, ed. John A Sloboda (New York: Oxford University Press, 1998), 105.
[18] Lehmann and Davidson, "Taking an Acquired," 545.

learning and practice over the quantity of practice. To be sure, practicing effectively plays a large role in shaping the quality of a performance.[19]

Areas for Improvement

Researchers point out many places where students could improve their practice. In one study, 50% of the students responded that they never planned out their practice.[20] In another study of 94 applied teachers, only 14% of them required students to submit written records of their practice objectives.[21] In a third study, only 21% of conservatory students evaluate their practice session.[22] The learning strategies that students use can also be vastly improved. Reports from related studies show a troubling between teacher and student: 84% of teachers say they include instructions for incorporating specific learning strategies to be used in the student's practice, while only 40% of students reported that their teacher had spent time during the lesson discussing specific learning strategies.[23] This gap in communication contributes to the limited number of learning strategies employed during a student's practice. Another difficulty to overcome is that sometimes students will report using certain learning strategies, while in reality they are not actually implementing them during practice.[24] Teachers need a way to monitor a student's practice, including the evaluation of that practice session, in order to help a student refine the skills of self-evaluation and self-reflection. Another area for improvement is the integration of knowledge and skills from related areas. There seems to be a great divide between

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[19] Barry and Hallam, "Practice," 152.
[20] Lehmann and Jørensen, "Practice," 684.
[21] McPherson and Zimmerman, "Self-Regulation," 332.
[22] Jørgensen, "Strategies," 96.
[23] Ibid., 99.
[24] Hallam, "Development of Expertise," 20.

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what students learn in other contexts and what they apply to their practicing.[25] Teachers should encourage students to draw upon knowledge gained in music theory classes, music history classes, ensemble rehearsals, masterclasses, and performances and integrate it into the information they work with during practice sessions. As you can see, there are many areas to improve within the realm of practicing.

Researchers have studied the differences in practice behavior between novice and expert musicians in order to make targeted recommendations for areas of improvement. Improving the quality of practice will help novice musicians learn on a deeper level, contribute to high quality performances, and advance the general level of their playing. The discrepancy between the practice behaviors of novices and experts seems daunting, but the gap is not insurmountable. There are many ways of improving the quality of practice and the benefits of doing so are tremendous.

II. Effective Practice, Self-Regulated Learning, and Metacognition

In order to instruct students in practicing effectively, it is important to understand the nature of practice, self-regulated learning, and metacognition.

The Nature of Effective Practice

In general terms, practicing develops skills in auditory processing, technique, cognition, communication, learning, and performing; all of these skills are necessary for a musician.[26] Practicing is a topic of study in various fields of research and in multiple practical contexts,

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[25] Rita Aiello and Aaron Williamon, "Memory," in *The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning,* ed. Richard Parncutt and Gary E. McPherson (New York: Oxford University Press, 2002), 176.
[26] Ibid.

leading to definitions that prioritize different attributes of practicing. We will look at two definitions to appreciate the many components of effective practice.

The first definition comes from the field of music psychology: "Practicing an instrument means assembling, storing, and constantly improving complex sensory-motor programs through prolonged and repeated execution of motor patterns under controlled monitoring of the auditory system." [27] This emphasizes the cognitive work that practicing accomplishes. Effective practice requires physical and mental repetition, happens over a long period of time, and involves careful listening. It is important to note the continuous and progressive nature of practice described here: it is a process that involves "constantly improving."

The second definition comes from the area of music education research. Jørgensen and Hallam define effective practice, also called deliberate practice, as "that which achieves the desired end-product in as short a time as possible, without interfering negatively with longer-term goals."[28] This definition approaches practice from a qualitative point of view, differentiating that which is effective and ineffective, placing value on efficiency and a well-defined goal. There are many elements involved in effective practice, but essentially, effective practice is efficient learning.

Learning is a complex process that involves acquiring new information and advancing skills; it is influenced by prior experiences, perceptions of the world, attitudes towards learning, and beliefs about oneself. A person can shape her learning experience by using practice strategies effectively. Jørgensen defines a practice strategy as the "way in which [students]

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[27] Eckart Altenmüller and Wilfried Gruhn, "Brain Mechanisms," in *The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning,* ed. Richard Parncutt and Gary E. McPherson (New York: Oxford University Press, 2002), 76.
[28] Jørgensen and Hallam, "Practicing," 265.

select, organize, integrate, and rehearse new knowledge and skills."[29] Using effective practice

strategies requires a conscious awareness of one's thinking. It demands active participation in the

learning process and results in a mental representation that can be constantly refined. Lehman

states that problems within a mental representation can be "remedied by designing practice

activities that carefully isolate aspects of performance and make them accessible to conscious

cognitive processing."[30] This is a useful description of practice because it incorporates the

learning goal, the effective use of practice strategies, and the necessity of conscious thought.

Jørgensen includes these three essential elements when he writes, "Developing a repertory of

strategies and acquiring knowledge about these as well as one's own cognitive functioning is

certainly one of the most important objectives for any practitioner."[31] Jørgensen, among others,

values an awareness of one's cognitive processes. The cognitive activity of learning is described

by the model of self-regulated learning.

Self-Regulated Learning

The learning that takes place during practice is understood as self-regulated learning.

Zimmerman explains that self-regulation is "the self-directive process by which learners

transform their mental abilities into academic skills."[32] McPherson and Zimmerman describe a

self-regulated learner as "metacognitively, motivationally, and behaviorally active participants in

their own learning process."[33] It is important to understand the model of self-regulated learning

because it directs efforts to improve practice into manageable areas. The three areas of concern

relate to the environment, behavior, and covert mental, physical, and emotional cues; the

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[29] Jørgensen, "Strategies," 85.
[30] Lehmann and Davidson, "Taking an Acquired," 549.
[31] Jørgensen, "Strategies," 85.
[32] Barry J. Zimmerman, "Becoming a Self-Regulated Learner: An Overview," *Theory into Practice* 41, no.2 (Spring 2002): 65.
[33] McPherson and Zimmerman, "Self-Regulation," 237.

Reflective Writing Prompts address issues in all three areas. Monitoring the environment brings awareness to the location and circumstances in which learning takes place. Monitoring behavior involves altering the methods of learning or adjusting the process of performance. Covert monitoring is concerned with a learner's cognitive and emotional states.[34] The model of self-regulated learning recognizes three distinct phases in the learning process: forethought, performance and volitional control, and self-reflection. These phases work cyclically: the result of self-reflection becomes a part of the forethought that follows.[35]

Forethought

Forethought involves a learner's established patterns of thought and personal beliefs; these include attitudes towards learning, perceptions of self-efficacy, and estimations of the nature of the learning task.[36] An important part of forethought is setting goals. McPherson and Zimmerman explain that learners who have clear goals are more likely to enjoy the process of learning and to feel confident in their abilities. Clear goals help a learner focus her effort, work harder, and be more persistent when confronted with challenges.[37] Strategic planning is another important aspect of forethought and involves selecting appropriate learning strategies and methods that contribute to achieving a given goal.[38]

Performance/Volitional Control

Performance/volitional control is the second phase of the model of self-regulated learning. During this phase a student is engaged in attention focusing, self-instruction, and self-

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[34] McPherson and Zimmerman, "Self-Regulation," 328.

[35] Ibid., 341.

[36] Ibid.

[37] Ibid.

[38] Barry J. Zimmerman, "Developing Self-Fulfilling Cycles of Academic Regulation: An Analysis of Exemplary Instructional Models," in *Self-Regulated Learning: From Teaching to Self-Reflective Practice,* ed. Dale H Schunk and Barry J. Zimmerman (New York: The Guilford Press, 1998), 3.

monitoring. Mental processing and task performance can be improved by focusing one's attention on a given task and blocking distractions.[39] Self-instruction is defined as "telling oneself how to proceed during a learning task."[40] This involves appropriating the necessary information and strategies to address a given task.[41] Self-monitoring "refers to mentally tracking one's performance" and helps a student gage progress.[42] All of these factors impact the learning process and must be well managed in order to optimize learning. As the central, most active part of the learning process, performance/volitional control requires considerable effort.

Self-reflection

The final phase of the self-regulated learning process is self-reflection. The components of this phase include self-evaluation, attributions, self-reactions, and adaptations.[43] A student is engaged in self-evaluation when she measures her performance according to a standard goal, compares her performance with that of a peer, or reacts to feedback from an instructor.[44] Self-evaluations lead to attributions, or assigning a cause to a given outcome. According to Zimmerman, "Self-regulated learners tend to attribute failures to correctable causes and attribute successes to personal competence."[45] Attributions can be based on ability or on the use of strategies, both of which influence the student's self-reaction. An attribution based on innate talent will have a negative effect on a student; she will be less likely to persevere through challenges. An attribution based on strategy use has a positive effect on a student; she believes that her effort and process can improve an outcome, making her more likely to persist through

[39] Lehmann and Davidson, "Taking an Acquired," 552.
[40] Zimmerman, "Developing Self-Fulfilling," 4.
[41] McPherson and Zimmerman, "Self-Regulation," 342.
[42] Gary E. McPherson and Barry J. Zimmerman, "Self-Regulation of Musical Learning: A Social Cognitive Perspective on Developing Performance Skills," in vol.2 of *MENC Handbook of Research on Music Learning*, ed. Richard Colwell and Peter R. Webster (New York: Oxford University Press, 2011), 161.
[43] Zimmerman, "Developing Self-Fulfilling," 5.
[44] McPherson and Zimmerman, "…Developing Performance Skills," 161.
[45] Zimmerman, "Developing Self-Fulfilling," 5.

challenging times. [46] The final phase of self-reflection occurs when the student makes

adaptations to the learning process, aiming to create a different outcome. The adaptations a

student makes will be influenced by her attributions and self-reactions.[47] Researchers agree that

this phase of the learning process could be improved significantly.

Metacognition

Metacognition is involved in each phase of self-regulated learning and contributes

significantly to effective practice. The following definition comes from education psychologists

Franz E. Weinert and Rainer H Kluwe: "Metacognition refers to cognition about cognition, and

means knowledge about one's own thinking, and cognitive activity having as its object own

thinking processes."[48] A learner monitors and controls her performance using metacognitive

activity.[49] Metacognitive knowledge is thinking about what one knows, metacognitive skill refers

to thinking about one's current activity, and metacognitive experience is thinking about one's

mental or emotional state.[50]

Metacognitive knowledge, skill and experience contribute to different phases of the self-

regulated learning process. During the forethought phase, metacognitive knowledge is involved

in helping a student understand the practice strategies she already knows. It is also used in

evaluating progress in the self-reflection phase. Metacognitive skill is active in the performance

and volitional control phase of self-regulated learning. Metacognitive experience is also used

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[46] Ibid.
[47] Ibid.
[48] Franz E. Weinert and Rainer H. Kluwe, "Preface," in *Metacognition, Motivation, and Understanding*, ed. Franz E. Weinert and Rainer H Kluwe (New Jersey: Lawrence Erlbaum Associates Inc., Publishers, 1987), xi.
[49] McPherson and Zimmerman, "Self-Regulation," 336.
[50] Susan Hallam, "The Development of Metacognition in Musicians: Implications for Education," *British Journal of Music Education* 18, no.1 (March 2001): 27.

during this phase to monitor one's mental and emotional state. Each phase of self-regulated

learning relies on different types of metacognitive activity.

Metacognition is crucial to so many aspects of self-regulated learning that it is difficult to

comprehend its far-reaching impact. Susan Hallam gives a detailed description of some of the

ways metacognition is involved in musical self-regulated learning.

> …a musician requires considerable metacognitive skills in order to be able to recognize
> the nature and requirements of a particular task; to identify particular difficulties; to have
> knowledge of a range of strategies for dealing with these problems; to know which
> strategy is appropriate for tackling each task; to monitor alternative strategies; to evaluate
> learning outcomes in performance context and take action as necessary to improve
> performance in the future. The musician must also have well-developed metacognitive
> skills including knowledge of and how to utilize skills for supporting practice, for
> example managing time appropriately to be able to meet deadlines, maintaining
> concentration, maintaining motivation and understanding what preparations are needed to
> ensure high performance standards.[51]

This passage details many facets related to metacognition's involvement in learning, yet it is

hardly exhaustive. This brief summary makes the challenge of applying effective metacognition

to each phase of the learning process appreciable. McPherson and Zimmerman state that "It is

unlikely that people will become effective learners without choosing to monitor and control their

own cognitive processes."[52] It is important that metacognitive skills be developed alongside the

development of musical knowledge and skills.[53] It is interesting to note that most musicians do

not feel their training developed their metacognitive skills.[54]

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[51] Hallam, "Development of Metacognition," 28.
[52] McPherson and Zimmerman, "Self-Regulation," 336.
[53] Barry and Hallam, "Practice," 160.
[54] Ibid.

Benefits of Self-Regulated Learning

Developing a student's metacognition and self-regulated learning skills are the primary concerns for teachers who want to help students practice effectively. The benefits of doing so can be seen by comparing descriptions of self-regulated and non-self-regulated learners. According to McPherson and Zimmerman, "self-regulated musicians consciously employed more sophisticated and musically appropriate strategies."[55] They are able to plan and manage time more efficiently, finding a balance between discipline and freedom.[56] A self-regulated learner is aware of the effect the physical environment has on her learning and she actively seeks to structure and control it.[57] One of the most important qualities of a self-regulated learner is that she has an awareness of the difficulties that confront her and appreciates her own failure to comprehend something.[58] If her own efforts to address the problem are not successful, a self-regulated learner will actively seek help from other resources and more knowledgeable persons.[59]

The following characteristics of a non-self-regulated learner stand in sharp contrast to those of a self-regulated learner. Non-self-regulating learners will avoid and spend less time practicing.[60] A non-self-regulated learner does not actively or successfully manage her learning environment.[61] When they do practice, these learners tend to waste time and fail to complete assigned tasks.[62] Without self-regulation, it is difficult for a learner to know when there is a gap

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[55] McPherson and Zimmerman, "Self-Regulation," 334.
[56] Ibid., 335.
[57] Ibid., 338.
[58] Ibid., 336.
[59] McPherson and Zimmerman, "Self-Regulation," 340.
[60] Ibid., 335.
[61] Susan Hallam and Alfredo Bautista, "Processes of Instrumental Learning: The Development of Musical Expertise," in vol. 1 of *The Oxford Handbook of Music Education*, ed. Gary E. McPherson and Graham F. Welch (New York: Oxford University Press, 2012), 662.
[62] McPherson and Zimmerman, "Self-Regulation," 336.

in her knowledge or if there is a difficulty in mastering a skill.[63] A non-self-regulated learner is reluctant to approach others for help because she fears the appearance associated with this and is unaware or unsure of the appropriate questions to ask.[64]

These contrasting descriptions show the value of self-regulated learning. The most important skills to learn and develop are self-regulated learning and metacognitive skills.[65] These skills can be developed alongside and support the development of aural, technical, analytic, and interpretive skills. Hallam and music education scholar Nancy H. Barry remark that a student "can improve skill by paying careful attention to increasing their own ability to learn how to learn."[66] In order to help students practice effectively, teachers need to focus on developing students' metacognitive and self-regulated learning skills.

III. Learning Journals and the Role of Reflective Thinking in the Learning Process

Learning Journals

A learning journal uses writing to facilitate learning; they can be structured in many different ways to suit a variety of disciplines. Jennifer A. Moon is an expert in reflective practices who focuses primarily on learning journals; her work informs my approach to Reflective Writing Prompts. Moon defines a learning journal as "an accumulation of material that is mainly based on the writer's processes of reflection…there is an overall intention by the writer (or those who have set the task) that learning should be enhanced."[67] The most important aspect of this tool, achieved through the act of writing, is the reflective thinking it stimulates.

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[63] Ibid.
[64] Ibid.
[65] Hallam and Bautista, "Processes," 664.
[66] Barry and Hallam, "Practice," 161.
[67] Jennifer A. Moon, *Reflection in Learning and Professional Development: Theory and Practice* (New York: RoutledgeFalmer, 2004), 2.

Learning journals can enhance any stage of learning and be applied to a variety of information, tasks, and behaviors. In order to appreciate the potential benefits of using learning journals, it is first necessary to understand the way reflective thinking contributes to the process.

Reflective Thinking

Reflective thinking is a mental process that can take many forms: from passive, casual reflection to structured, goal directed reflection. It is used in many contexts, including higher education, personal development, and professional development. The work of John Dewey, psychologist and education reformer, is central to the study of reflective thinking. Dewey defines reflective thinking as "active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and further conclusions to which it lends…it includes a conscious and voluntary effort to establish belief upon a firm basis of evidence and rationality."[68] This definition narrows the parameters of reflective thinking to that which is "active, persistent and careful." This mental process includes emotions and the imagination in the construction of knowledge.[69] The larger relationship between information and the process of reflective thinking is characterized by Moon as an "Input/Process/Output" model. The input is made of information, constructed knowledge, or feelings. The process of reflective thinking leads to the following outcomes: newly constructed knowledge, emotions, action, critical review, self-development, or emancipation. Reflective thinking can be used in the interpretation of information; it is particularly effective when used for concepts that are abstract or complex.[70] It can also be used to facilitate objectivity and growth in behavioral contexts.

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[68] Ibid., 12
[69] Moon, "Reflection," 13.
[70] Moon, "Reflection," 10.

Role of Reflective Thinking in Stages of Learning

The input/process/output model is described in greater detail by Moon's model of learning, represented in the diagram below.

"*Map of Learning and the Representation of Learning and the Role of Reflection*"[71]

| Cognitive structure | Stages of learning | (Deep/surface learning) | Best possible representation of learning (BPR) |
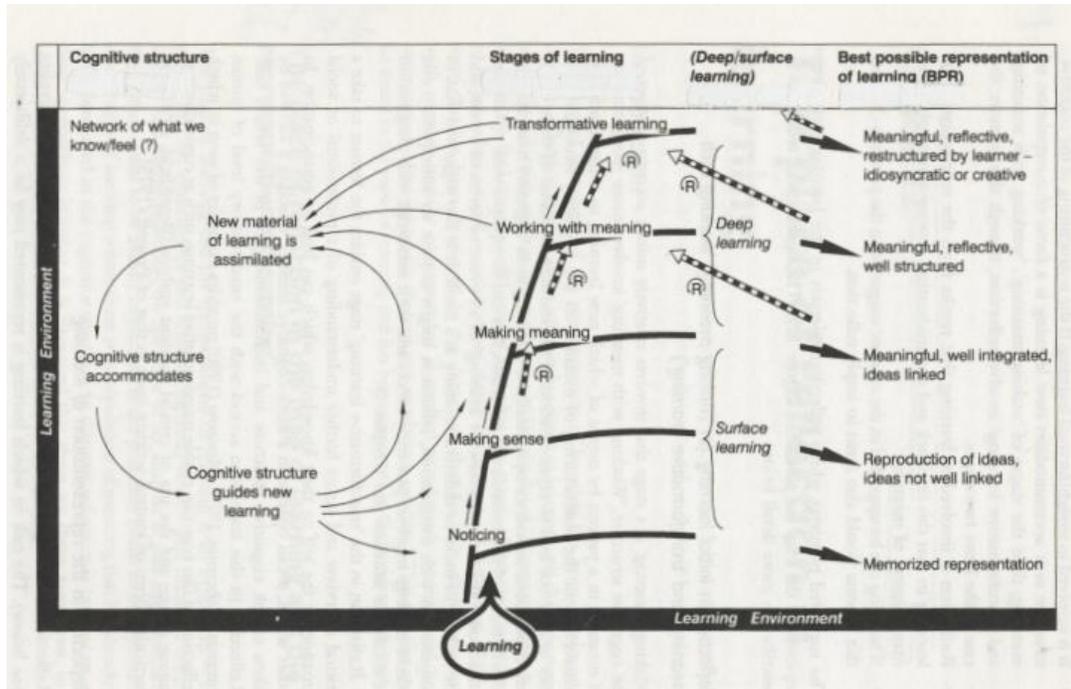
This model represents the stages of learning, reflective thinking, upgrading learning, and representations of learning in a cyclic process. According to Moon, learning is "interacting with and transforming received information so as to own it and make it personally meaningful."[72] The basic cycle described in Moon's diagram proceeds as follows: New material is assimilated, the network of constructed knowledge (cognitive structure) changes, the network of constructed knowledge facilitates new learning, meaning is made (one of the five stages of learning), and this

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[71] Moon, "Reflection," 154.
[72] Ibid., 107.

starts the cycle over again with the assimilation of new material.[73] The following is an example

of this cycle in action: a student sees that there is a change in dynamic in the music and she

knows to make a change in volume. Her teacher explains that the dynamic marking signals a

harmonic change; this is the new material of learning. The student incorporates this information

into her concept of the music and it guides her approach to the passage, influencing the volume

and character she plays. The student has gone through a cycle of learning, using the harmonic

information to make the dynamic marking meaningful. The change in the way she plays this

passage is evidence of the learning that has taken place.

In a cycle, learning can happen at five different stages, arranged hierarchically depending

on levels of complexity. The stages are "noticing," "making sense," "making meaning,"

"working with meaning," and "transformative learning."[74] "Noticing" is the first stage: in order

for something to be learned, it must first be recognized. Concepts and knowledge that the learner

possesses will influence the material that is noticed, making it important for her to be aware of

things she already knows.[75] "Making sense" is the stage where coherency within the material is

recognized.[76] "Noticing" and "making sense" do not involve reflective thinking and are

considered surface approaches to learning. "Making meaning" is the first stage where reflective

thinking might be involved. During this phase, new material is incorporated into the learner's

network of constructed knowledge. The network and the new material are modified in order to fit

together.[77] Reflective thinking is involved in "working with meaning," the stage where a learner

uses the newly acquired and accommodated knowledge to develop understanding.[78] Reflective

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[73] Ibid., 154.
[74] Ibid., 115.
[75] Ibid., 141.
[76] Ibid., 142.
[77] Ibid., 143.
[78] Moon, "Reflection," 144.

thinking plays a huge role in "transformative learning," the stage where the network of constructed knowledge is substantially changed. Metacognition is at a premium here, enabling the learner to evaluate the nature of her knowledge in the context of learning. The representations of learning from this stage are creative and the entire stage is characterized by an "intellectual excitement and deeply satisfying discourse."[79] Reflective thinking, involved in the final three stages of learning, is essential for a deep approach to learning.[80]

Reflective Thinking in Learning Cycles and Upgrading Learning

Material will be processed through one stage of learning in a given cycle. One cycle might utilize the stage of "working with meaning" and a different learning cycle could use a "making sense" stage.

Processing material through multiple learning cycles using different stages of learning is a unique process, called upgrading learning. [81] Here is an example of how this process works: the product of a cycle in the "making sense" stage can be reprocessed through another cycle, this time at the "making meaning" stage. Upgrading learning happens frequently in higher education settings, where students are actively striving for greater levels of comprehension.[82] For instance, a student might initially learn style characteristics of the Baroque period. Once she understands how these characteristics relate to each other, she can use them in a successive learning cycles to eventually understand how these style characteristics are manifested in the piece she is playing. Moon argues that the process of upgrading learning is not automatic, but requires reflective thinking.

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[79] Ibid., 146.
[80] Ibid., 152.
[81] Ibid., 147.
[82] Ibid., 149.

Roles of Reflective Thinking in the Representation of Learning

Part of the learning process is representing learning. A representation of learning is evidence that learning has taken place and it indicates the type of mental processes that were involved. In the field of music, we might recognize an original composition, a memorized piece, or a theoretical analysis as a representation of learning. In other fields, a representation of learning might be an essay, verbal account, or proof. Teachers use these forms of representation to evaluate a student's depth of learning. Researchers studying the psychology of learning use the Structure of Learning Outcomes Taxonomy, or 'SOLO Taxonomy,' to evaluate a representation of learning.[83] There are five levels to this system of evaluation: pre-structural, unistructural, multistructural, relational, and extended abstract.[84] These categories can help a teacher evaluate a student's learning.

Moon's descriptions of the "best possible representation" in her model are related to these five levels of the SOLO Taxonomy. The "best possible representation" refers to the most advanced representation that can possibly occur under ideal circumstances. Moon uses a study done by Van Rossum and Schenk that links the stages of learning, representing the quality of mental process being used, with the levels of the SOLO Taxonomy. Moon explains its value: "…The degree of abstraction and organization of the material that is presented by the learner is a guide to the form of the mental processes that give rise to it."[85] In an ideal situation, a learner that has reached the "making meaning" stage of learning has the potential to create a representation of learning that is "meaningful, well integrated, [with] ideas linked." The relationship between the structure of the representation of learning and the mental process that

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[83] Ibid., 125.
[84] Ibid., 124.
[85] Ibid., 125.

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created it can be helpful to teachers as they monitor a student's progress. If a representation of learning is not well structured and does not link ideas, the teacher knows that reflective thinking has not occurred. For example, in a music history class, a student is asked to write an essay explaining the principles of thought that influenced musical style in the Classical period. Learning that results from the "making meaning" stage will lead to an essay that connects the Enlightenment ideas of equality and naturalness to balanced musical phrases and melody plus accompaniment textures.

More than a product for evaluation, the process of representing learning can actually produce new learning by engaging reflective thinking.[86] Moon explains that reflective thinking must be involved in this learning because it involves the manipulation of meaning.[87]

To summarize, reflective thinking is involved in multiple aspects of the learning process. It can be used in a single learning cycle that uses the advanced stages of learning—"making meaning," "working with meaning," or "transformative learning." Reflective thinking is part of the process of upgrading learning, where the learner intentionally reprocesses material through multiple learning cycles. Reflective thinking is also involved in the learning generated by the representation of learning. Writing is valuable because it stimulates reflective thinking, which we now understand is a vital component of the learning process. With this theoretical understanding, we can move on to discuss the specific benefits of writing in learning journals.

Reflective Thinking and Writing

Reflective thinking is stimulated by writing in two different ways, based on the two models of writing described as knowledge telling or knowledge transforming. In the knowledge

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[86] Ibid., 153.
[87] Ibid.

telling model, writing simply records the learner's knowledge.[88] Reflective thinking is likely

absent during this mode of writing, especially if the learner is simply recounting memorized

information. However, the product of this mode of writing may be used later in upgrading

learning, where reflective thinking is active. In the knowledge transforming model, the process

of writing develops a learner's knowledge through text and information processing. This mode of

writing stimulates reflective thinking that can generate new ideas.[89] In either model, writing can

stimulate reflective thinking.

Writing as a Learning Tool

Writing is an effective tool to improve learning as a process and a product. According to

Tynjälä, writing is useful in critical thinking and higher-order learning.[90] He states, "Journal

writing seems to be especially effective in developing students' metacognitive or reflective

skills."[91] Tynjälä explains that writing works in the following ways: developing thinking skills,

fostering understanding, and enhancing conceptions.[92] This view is concerned with the process

of writing. Janet Emig, an English education scholar, explains another valuable aspect of writing

as a process. She writes, "Writing can sponsor learning because it can match its pace."[93] Writing

is also valuable as a product; according to Emig, "Writing is our representation of the world

made visible."[94] Writing gives form to abstract ideas.[95] It makes our concept of the world and our

network of constructed knowledge available for conscious consideration.[96] Moon writes, "Any

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[88] Tynjälä, "Writing," 214.
[89] Ibid.
[90] Ibid., 213.
[91] Ibid., 214.
[92] Ibid., 213.
[93] Janet Emig, "Writing as a Mode of Learning," *College Composition and Communication* 28, no.2 (May 1977): 126.
[94] Ibid., 124.
[95] Ibid., 128.
[96] Lehmann and Davidson, "Taking an Acquired," 549.

technique that enables a learner to understand more about their own learning behavior is likely to enhance reflection in learning and offer the possibility of improvement of technique."[97] These experts clearly value and recommend writing as a learning tool because of the benefits it confers through reflective thinking. The capacity of writing to improve learning by stimulating reflective thinking makes a learning journal an invaluable tool.

IV. Reflective Writing in Applied Music

Relating Self-Regulated Learning Skills to Reflective Writing

The previous sections explain important aspects of practicing and reflective writing. These sections are based entirely on the research conducted by music psychologists and the theories of experts in the fields of self-regulated learning and reflective writing. This information forms the theoretical foundation for the music specific Reflective Writing Prompts (RWPs). The following section explains the specific connections between the different fields of scholarly research and the prompts.

Researchers and scholars agree that the most important skills a music student needs to learn are the skills that contribute to independent learning. Self-regulated music students learn effectively, advance their overall level of playing, and improve the quality of their performances. Researchers consistently recommend more attention and effort be given to teaching and developing self-regulated learning skills. The nature of reflective writing makes it effective in teaching and developing these skills. Reflective writing matches the pace of learning—it slows down the learning process and enables students to be consciously aware of their thinking. There is a tendency for less advanced music students to practice without a well-developed sense of

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[97] Moon, "Reflection," 214.

awareness—playing for hours without really listening and thinking about what they are doing, which can hardly be considered effective practice. Reflective writing disrupts this habit of mindless playing and facilitates the development of self-regulated learning skills that contribute to effective practice. In applied music, much of the construction of knowledge happens independently and is primarily demonstrated through playing or recounted in verbal explanations. But constructing meaning and representing learning of applied music can also happen by engaging in reflective writing. Writing forces students to step away from their instruments and think about music in different ways; this moves beyond learning through playing to something deeper: learning by playing and thinking reflectively. Reading and writing within a discipline will advance one's expertise in that area. The RWPs helps music students engage in reflective thinking in a way that is more suitable for their stage of learning. They can use their writing skills as they are—the focus is on the thinking process and not on polished prose. Reflective writing is a learning tool that is accessible, convenient, and cost-effective—all that is needed is paper and pencil. The music-specific RWPs are effective because they create space for a student to think about her musical learning, provides a structure that focuses her attention, and makes her efforts productive. Another benefit of reflective writing within an applied music setting, is the potential for facilitating communication between teacher and student. Beyond evaluating her progress in playing, a teacher can assess a student's knowledge on a particular subject when it is represented in written form. Teachers can use a student's response to a reflective writing prompt to identify gaps or errors in the student's knowledge. The student's response can also start a dialogue that will remedy any misconceptions and guide the student's thinking further.

Barriers to the Development of Metacognitive and Self-Regulated Learning Skills

The first barrier to developing metacognitive and self-regulated learning skills is a lack of attention. In many cases, the skills relating to metacognition and self-regulated learning are never explicitly taught. There is no method, specific to applied music, that is designed to teach and develop these skills. Without a specific approach, these skills go unnoticed and underdeveloped. Any measures to address these skills will be less effective if they are far removed from the music discipline. It is essential that instruction that works towards developing these skills be compatible with the material (the instrument or repertoire), environment (private or studio setting), and stage of learning (beginner or advanced student). If these are developed separately, there might be barriers in the application of these skills.

Another issue to resolve is the quantity and range of skills that need to be developed. There are many skills related to metacognition and each phase of self-regulated learning; including forethought, performance and volition control, and self-reflection. If one skill set or phase is neglected the others will suffer. Any method to develop these skills should address each phase of learning, including metacognition within each phase.

The last major concern is the development of metacognitive and self-regulated learning skills over time. In the same way that an applied music skill is progressively improved and developed over long periods of time, the skills of metacognition and self-regulated learning must also be progressively improved. This requires an adaptable method of teaching these skills, one that is applicable in many developmental stages and useful throughout the education and career of musician.

Resolving Barriers with Reflective Writing

Writing can teach and develop metacognitive and self-regulated learning skills in the context of applied music, helping to make practice more effective. The flexible and adaptable nature of writing addresses the four barriers discussed above.

Writing creates time and space for developing metacognitive and self-regulated skills, making it more difficult to overlook and neglect them. Writing is well-suited to the discourse of applied music because rich, evocative, and expressive language germane to applied music can be conveyed through writing. Articulating ideas is central to working in the field of applied music, and while this usually happens verbally, there is real value to articulating ideas through the written word. Journaling serves as another way to practice thinking within the music discipline. It is flexible and can be used to develop skills in a wide range of areas, including the three phases of self-regulated learning. Reflective writing can be specific to address practice strategies and it can be free and unstructured to activate metacognition. Writing uses a skill that students already possess and can be used at many developmental stages, developing with the student over time. The practice of writing reflectively is an effective method to teach and develop metacognitive and self-regulated learning skills that can help improve practicing.

Benefits of Reflective Writing Prompts

The practice of writing includes a wide variety of styles and techniques and it can be difficult to discern the approach that will work best in the context of applied music. One possibility is to simply encourage students to write about their practice and playing. This free and undirected writing can be helpful for advanced, highly self-aware students to deepen their engagement with music. One drawback to this method is that the subject matter can be left to chance. This makes it possible for metacognition and the self-regulated learning skills to be

engaged only sporadically. Associated with this free-form writing is the danger that the process never moves beyond a surface engagement of describing practice to actually reflecting on it. Free writing could be difficult and ineffective for less advanced students who lack the necessary vocabulary and level of comprehension within the music discipline to benefit from writing about it. The risks and barriers posed by free writing exposes the need for a structured form of writing.

The RWPs provide a structure for writing that makes reflective thinking productive. These prompts are designed to encourage metacognition and reflection in the development of a specific skill related to self-regulated learning. The questions within each prompt provide a framework for thinking, making it easier for students to familiarize themselves with writing and thinking within the field. These prompts are manageable: they require time and effort, but are not an overwhelming burden to a student's workload. Another benefit is that writing with a RWP creates both immediate and long-term changes in thinking and behavior. The questions are open to allow for further thinking and the exercises can be used as starting points for very advanced students.

The prompts act as self-contained exercises that can be repeated as necessary. This format is familiar to musicians, who are accustomed to using scale and etude books to develop technical skills. A given prompt addresses a specific skill, calling attention to the importance of developing that skill. The self-contained nature of the prompts make it possible for a teacher to assign a RWP that will address and support a student's specific need. The prompts are not designed sequentially, the teacher can feel free to choose the most appropriate prompt for a given situation. A student's response to a RWP is a valuable resource for a teacher in understanding a student's progress, revealing any gaps or flaws in the student's body of knowledge, pointing to places for improvement. A student's writing can initiate discussion of metacognition, self-

regulated learning skills, and musical topics, supporting a meaningful dialogue between teacher and student.

Four Areas of Focus

The conclusions gathered from the music psychology studies, combined with self-regulated learning theories, point to three major areas for improvement: planning, awareness of practice strategies, and evaluation. The RWPs prioritize these areas with the intention of improving self-regulated learning skills and metacognition. In addition to these three areas of focus, a final set of prompts addresses beliefs about and behaviors towards oneself. The wording and design of the prompts are guided by the recommendations of reflective journal scholars with modifications that make them effective for applied music. The prompts are geared towards string players, but can be modified to suit the needs of different instruments.

Prompts for Planning

The first set of reflective writing prompts, "Prompts for Planning," develops the self-regulated learning skill of planning—a skill researchers deem vital to effective practice. A practice plan can help a student use her time effectively, focus on tasks, and ensure that the required assignments are completed. Planning is a skill that needs to be taught: students will not automatically know how to plan their practice, they will need guidance and support in developing this skill. The act of writing out a practice plan brings the skill of planning into the conscious awareness of the student. "…on a plan for the week" guides a student through the process of planning out an entire week of practice sessions. "…on a warm-up plan" helps the student plan a strategic warm-up to use before a performance. Students are able to consider the following ideas: evaluating learning priorities, addressing behavioral habits, and categorizing practice strategies. These RWPs are structured for different situations, showing the student that

the skill of planning can be used in many ways. By working consistently with these prompts, the student's planning skills will improve and she will require less help in this area; planning will become a natural part of her practice. Over time, she can improve her planning skills—personalizing her plans to support her learning style, practice habits, and musical goals. Apart from developing a self-regulated learning skill, the student's practice and playing has the potential to improve as well.

Prompts for Practice Strategies

The second set of RWPs, "Prompts for Practice Strategies," cultivates an awareness of practice strategies and facilitates their incorporation into a student's practice. Reflective writing helps students construct knowledge—giving them a chance to consciously make connections between musical contexts, problematic passages, and practice strategies. Some of these prompts are intended to be completed in the practice room in conjunction with playing. "…on creating a practice strategy" combines playing and reflective thinking to help students create a practice strategy that will address a challenging passage. Guiding students through the process of understanding a problem and exploring possible solutions to it promotes a sense of empowerment in the learning process, while at the same time encouraging their creative thinking skills. "…on mental practice" is a RWP that helps students develop a practice technique that takes place away from their instrument, confronting any mental barriers to incorporating it into their repertoire of practice strategies. Some RWPs refine a student's understanding of a technical skill by directing them to give explicit instructions for its execution. Examples of these prompts include "…on shifting" and "…on sautillé." These are two examples of prompts that are specific to the technical demands of string players, but teachers can modify the prompts to suit the needs of their instrument. Together, RWPs in this section contribute to an increased awareness of

available practice strategies and a deeper understanding of the appropriate situations in which to use them. These prompts have the potential to raise a student's overall level of playing and improve the quality of a performance. More importantly, these exercises help students take control of their learning, supporting them to become self-regulated learners that practice effectively.

Prompts for Evaluation

The third set of reflective writing prompts, "Prompts for Evaluation," develops self-regulated learning skills related to evaluation. The habit of omitting evaluation needs to be addressed immediately because evaluation is crucial to practicing effectively and advancing in musical expertise. Through evaluation a student gains an understanding of her strengths and weakness, appreciates her current level of playing, and assesses the outcome of her efforts. Without the ability to evaluate, a student cannot choose appropriate tasks that will advance her learning, which leads to feelings of frustration and diminished progress. The RWPs develop the skills necessary to make evaluation beneficial to the learning process. Each prompt focuses on evaluating a process; this supports a positive sense of self-efficacy that is necessary for motivated and independent learners. The exercises discourage talent-based attributions and evaluations, minimizing the potential for responses that decrease motivation and stop the learning process. The RWPs guide evaluations in different situations. "…on your sound recorded" includes different perspectives in the process of evaluation by using a recording of the student's playing. "…on the process" helps a student evaluate the long-term process of learning a piece. By guiding students to make evaluations, the reflective writing prompts lead students to engage in an important part of the learning process, supporting their growth as self-regulated learners.

Prompts for Oneself

The final set of RWPs, "Prompts for Oneself," develops metacognitive skills and increases awareness of beliefs of oneself. These beliefs are related to a student's sense of self-efficacy, attitude toward practicing, and perception of strengths and weaknesses. Scholars stress the importance of cultivating a student's positive attitudes towards learning and positive beliefs about herself because they contribute to a positive learning experience. A strong belief in her ability to effect change increases a student's motivation and perseverance, positioning her to become an independent learner. It can be challenging to understand and influence a student's beliefs when they remain unspoken. Reflective writing is a learning opportunity where beliefs can be brought into conscious awareness in order to be carefully considered. The process of writing engages and develops a student's metacognitive skills; it also enables the student to actively shape her beliefs. Through the written responses, a teacher can better appreciate a student's thinking, helping the teacher offer strategic guidance that supports the student in meaningful ways. The written responses can start an important, and too often neglected, conversation about beliefs of oneself. The RWPs guide students to consider their beliefs in a variety of contexts. "…on fear" helps students acknowledge their fears related to playing music. "…on yourself" asks students to consider their strengths and weaknesses. This series of reflective writing prompts is valuable because it uses and develops a student's metacognitive skills and increases a student's awareness of her beliefs—both of which contribute to a positive self-regulated learning experience.

V. Using the Reflective Writing Prompts Effectively

A Teacher's Role in Improving Practice

There are key qualities that a student needs to have in order to practice effectively. In order to practice effectively, students need to hold positive beliefs about themselves and the learning process. Before anything can happen, a student must have a strong sense of self-efficacy. Self-efficacy is the belief that one has the capability to effect change. It relates to the nature of a task, influences a student's perception of her own abilities and the tasks she will engage in, and determines the amount of effort she will put forth. A positive belief in her capabilities leads a student to set higher goals and fosters a stronger commitment to the learning process.[98] Research on practicing has shown that self-efficacy is the best predictor of performance.[99] Another essential quality for a student to possess is a positive attitude towards the act of practicing. Harald Jørgensen and Susan Hallam, music psychologists, explain that a person with a positive attitude towards practicing is more likely to plan her practice, engage in problem solving, and create performance goals that are cognitively complex.[100] For these reasons, it is important that a teacher foster and support a student's positive belief in herself.

With these qualities in place, a student can learn the fundamental skills involved in effective practice. Researchers state explicitly that students must be taught how to practice effectively. Multiple studies show that without specific instruction and guidance, a student's default method of practice is simply playing through music, essentially mindless repetition. This type of playing cannot be considered effective practice and will not lead to a significant

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[98] McPherson and Zimmerman, "Self-Regulation," 341.
[99] Jørgensen and Hallam, "Practicing," 267.
[100] Ibid., 271.

improvement in a student's playing.[101] One skill that is essential for a student to learn is setting appropriate goals. The type of goal that is set influences the student's ability to effectively plan, execute, and evaluate her practice. An ability-oriented goal emphasizes innate talent and relates to displaying competency and outperforming others. A task-oriented goal emphasizes effort and relates to mastering a given task, improving competency, and acquiring new skills.[102] Task-oriented goals lead to greater cognitive engagement and the use of more cognitive strategies.[103] It is this higher level thinking that improves the quality of practice by making practice "deliberate, effortful, and goal directed."[104] Practice of this kind can have a positive effect on the quality of performance.[105] Students must also learn numerous practice strategies and understand the best situations in which to use each one. They also need to adopt modes of thinking that are appropriate in the music discipline, including the ability to approach and solve problems as an expert in the field would do so.[106] In order to practice effectively, students need to learn these fundamental skills, strategies, and modes of thought.

Teachers have a responsibility to help students learn the fundamental skills of practicing effectively, support a student's sense of self-efficacy, and encourage a positive attitude towards practicing. It is important to keep these essential qualities and fundamental skills in mind when working with the RWPs.

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[101] Lehmann and Jørgensen, "Practice," 679.
[102] Siw G. Nielsen, "Achievement Goals, Learning Strategies, and Instrumental Performance," *Music Education Research* 10, no.2 (2008): 236.
[103] Ibid.
[104] Lehmann and Davidson, "Taking an Acquired," 550.
[105] Ibid.
[106] Jørgensen and Hallam, "Practicing," 271.

Recommendations for Use

Introducing Students to Reflective Writing

Musicians at any stage of development can benefit from reflective writing: younger students could be introduced to the practice with simple exercises, professional musicians can explore free writing to enhance their creativity, and teachers can journal to gain awareness of their teaching habits. There are many possible ways to use reflective writing within applied music that vary according to intended goals and preferred format; the following prompts are simply one possibility.

The Reflective Writing Prompts are designed as an introduction to the practice of reflective writing. The set of prompts acts like an etude book: the individual exercises can be used in any order, modified to fit a particular goal, and repeated as needed. These prompts are ideal for a student who has competent playing skills and musical knowledge and possesses enough self-awareness to practice and complete tasks on her own. Students do not need advanced writing skills to respond to the Reflective Writing Prompts. The supportive, collegiate atmosphere of applied music studios is ideal for using the Reflective Writing Prompts because it can be reassuring for students to know that others are working towards the same goal in similar ways. It can be beneficial for students who are new to journaling to see the process and benefits of writing modeled by their peers. It is also important for the teacher to model reflective thinking and writing.[107]

It is possible to fold the RWPs into the regular repertoire of learning materials consistently used in an applied music studio. A teacher can make recommendations for the amount of time a student should spend working with a given exercise. It is necessary to balance

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[107] Ibid., 167.

reflective thinking within the prompts and the student's other practice assignments. It is important to keep in mind that reflective thinking requires a fair amount of time, without which it cannot be effective. A teacher can help a student estimate and plan an appropriate amount of time to work with an assigned prompt. The prompts can be modified to meet the varied needs of students at different stages of development. For example, if a student feels overwhelmed by writing, a teacher can assign one or two questions from a prompt for one week, working through a single prompt over a longer period of time. Another possibility is to ask a student who has completed the reflections "…on shifting" and "…on sautillé" to reflect on a different playing technique of their choice. It can also be helpful for students to return to prompts and repeat exercises for a refresher on a given topic.

Writing Style

It is important for students to understand that the RWPs use free writing as a tool to facilitate thinking. A writing style that is "personal, tentative exploratory, and at times, indecisive,"[108] is to be expected in responses; there should be no expectations of polished prose. Careful consideration should be given to any language barriers that might exist between the teacher and student. The goal of journaling is for a student to think reflectively, create meaning, and take control of their learning—these things cannot happen if a student is struggling with language. In assigning prompts, depending on the goals and means of evaluation, a teacher can specify the language a student should use. This can change for each prompt and over time. One possibility is for a student to respond to a prompt in a language they feel comfortable using, with the teacher giving credit for completion. The following week, a student can translate her response, a second opportunity to engage in reflective thinking, and the teacher can review it for

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[108] Moon, "Reflection," 174.

content and begin discussing it. There are many options to overcome language barriers and a teacher will need to find a solution that will make reflective writing beneficial for each student.

It is best to introduce the practice of reflective writing slowly and without the pressure that comes with the perception of learning a new skill.[109] At first, a student might be uncomfortable or unsure of the way to respond to a prompt. With time and practice, she will become familiar and confident in thinking reflectively and writing freely.[110] When a student becomes comfortable with the practice of reflective thinking and writing, the prompts can be used as a starting point leading to free, self-guided reflections. It might be helpful for a student to see examples of responses from her peers or from the teacher.[111] It is important for a student to understand that the goal of a prompt is to foster reflection—making the quality of thought, not the quality of writing, the primary concern.

Students are more likely to put effort into responding to the RWPs if they understand the benefits of the practice. After sharing the general benefits that come from reflective journaling, including improved problem solving skills and enhanced creativity, a teacher should explain the specific benefit of using a given prompt. For example, a teacher could explain that the "…on a plan for the day" prompt helps a student be mindful of her assignments, stay focused during practice, and increase the efficiency of her practice. It is crucial that a student be aware of who will read her writing because the audience will influence her response.[112] Let a student know if her response will be kept private, shared with the teacher, or used in a group setting. If a prompt

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[109] Ibid.
[110] Ibid., 193.
[111] Ibid., 197.
[112] Ibid., 172.

will be used to generate group discussions, it is important that confidentiality is respected and that all participants feel comfortable.[113]

Teacher Assessment

The manner in which a teacher engages with the student's response to the Reflective Writing Prompts can make the prompts even more effective. A student should understand the way her response will be evaluated for a grade. An assessment based on completion of the prompt, complete/incomplete, would work well in an applied music setting. The RWPs can act like any other etude or piece assigned to a student. For example, a lesson can begin by discussing the student's experience of responding to a prompt. A teacher can give suggestions for further thinking, encourage a student to reflect more, or offer positive reinforcement for good effort and work. By opening up dialogue in this way, the prompts help a teacher guide a student's development. Another beneficial option is for a teacher to read and write responses for the student to read later; this would show the student that the teacher is also invested in the practice of reflective writing. Reading the teacher's response creates an opportunity for the student to re-read and reflect on her original response. These forms of engagement can be fulfilling because they contribute to a productive discourse between teacher and student. The RWPs are similar to the other learning materials frequently used in an applied music setting in that progress is the most important characteristic of a student's work. A teacher will know the best way to assess a student's work with the prompts and measure her progress in reflective thinking and the development of metacognitive and self-regulated learning skills.

When working with a student to develop these skills through journaling, it is important to acknowledge that reflective writing might not be the best approach for some students. The RWPs

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[113] Ibid., 197.

might not be compatible with a student's unique style of learning. Journaling is ideal for students who learn verbally, who excel at writing and reading. RWPs might not be as effective for students who are aural or experiential learners. That being said, it is still valuable to at least introduce reflective writing to students so they become aware that this practice is available. A student who initially does not make progress with the RWPs might find them useful in the future, under different circumstances. If the RWPs are not effective for an individual, a teacher should try to find another way to help the student develop her metacognitive and self-regulated learning skills.

Alternative Approaches to Utilizing the Reflective Writing Prompts

With so many important things to teach a music student, including training the ear, developing technique, working through repertoire, and refining expression, it might seem unrealistic to add anything else. But, taking time to develop metacognition and self-regulated learning skills is of great value because it helps students learn on their own. Reflective writing is an excellent tool to address these skills and teachers should take time to introduce this practice to their students. There are several ways to use the RWPs in a way that works for both teacher and student. A student could write responses to RWPs in a journal that the teacher collects, reads, and responds to a few times each semester. Another option is for a teacher to read a student's reflection the day before her lesson; this would give the teacher an opportunity to reflect on material that needs to be covered during the lesson. Writing with paper and pencil is the ideal method to use with the RWPs because it happens at a slower pace, but using computers and digital technology can be beneficial and practical. Perhaps a free flowing dialogue is easier to keep up through email or a web portal. Any of these approaches to reflective writing can be helpful and teachers should feel free to make the RWPs work for them. Whatever the method, it

is essential that teachers make time to teach the skills of metacognition and self-regulated learning.

The Future of Reflective Writing Prompts

The Reflective Writing Prompts introduce the practice of reflective writing in an applied music setting, but they are far from complete. There are many possible ways of using reflective writing to improve metacognitive and self-regulated learning skills within the discipline of applied music. For example, it would be helpful to create prompts that are designed to support the specific needs of each instrument (this set of prompts only includes skills related to string instruments). Also important, the practice habits of younger students could be improved by introducing self-regulated learning skills sooner with prompts that are appropriate for their cognitive development. These prompts would be interactive to make space for an adult who practices with a child. In addition, an advanced set of prompts could be developed to encourage more freedom of thought and creative exploration for musicians who excel at journaling. I would also like to explore various mediums to engage in this type of work. For example, maybe developing an online interface of RWPs would be more practical for college professors and their students.

Before more work can be done, it is important that the effectiveness of using these prompts be measured through a controlled study. To understand the full impact, it would be necessary to gather the following information: reports from students related to the challenges and rewards of using the prompts, feedback from teacher's regarding the practicality of the RWPs, and teacher evaluations of the development of metacognitive and self-regulated learning skills in students using these exercises. It would also be important to gather information concerning the short and long-term effects of using the RWPs.

Conclusion

A central part of teaching applied music is helping students practice effectively. Along with training the ear, developing technique, exploring repertoire, and guiding creativity, a teacher also needs to help a student develop the skills necessary for independent learning. During the process of mastering an instrument and finding her voice as a musician, a student is also learning how to learn. Applied music is an ideal setting to gain independence in learning because there are many opportunities to practice metacognition and self-regulated learning skills. The skills of forethought, performance/volitional control, self-evaluation, and metacognition can be developed in a musical setting, and doing so can have a positive impact on a student's ability to practice. These skills can be taught through reflective writing, a practice that uses reflective thinking to improve the quality of learning.

The Reflective Writing Prompts stimulate reflective thinking in an applied music setting. They are inspired by my violin background and will work well for string players; with modifications, they can also be helpful for other instrumentalists and vocalists. The RWPs focus on musical topics such as technique, masterclasses, recordings, mental practice, and formal analysis in order to elicit reflective thinking in students. By working with these exercises, a student has the opportunity to develop her metacognitive and self-regulated learning skills. It is important that this learning tool be introduced slowly, with guidance and modifications from the teacher. The reflections can stimulate productive conversations, enriching the ongoing dialogue between student and teacher.

The RWPs are one method that may help students learn metacognitive and self-regulated learning skills that can help them practice effectively. This set of prompts may or may not be an effectively learning tool for everyone, but it would be great if everyone had the chance to try it. It

is my hope that these prompts help others develop independent learning skills, improve their practice habits, and create positive learning experiences. I encourage people to modify these exercises and personalize the practice of reflective writing so that it works for them. Hopefully one day, ineffective practice habits will only exist in the mocking performance of the "Pianistes" of Saint-Saëns "Le carnaval des animaux."

VI. Reflective Writing Prompts

Brief Guidelines for Using Reflective Writing Prompts

It is important for a music student to learn how to practice effectively. This requires the following self-regulated learning skills: planning, setting goals, creating a positive learning environment, using different practice strategies, maintaining focus, evaluating work, and monitoring progress. Practice can be made more effective with metacognition, or the ability to think about one's thoughts. The Reflective Writing Prompts use writing to stimulate reflective thinking that develops metacognitive and self-regulated learning skills that can help students become independent learners.

The prompts address issues related to planning, practice strategies, evaluation, and personal beliefs about oneself. They do not work in sequential order; a teacher can assign a prompt that addresses the particular needs of a student at any moment. Teachers should help students understand that a RWP is an opportunity to practice reflective thinking by encouraging students to use a free, personal, and informal style of writing. The process of responding to a prompt slows the pace of learning so that a student can become aware of her thoughts, reflect on the material, and make a conscious decision about the next step in the learning process. A student's response is a great opportunity, either through written feedback or an open discussion,

to begin a dialogue about effective practice, technical concerns, or musical topics. These prompts can help a teacher understand the way a student learns; the reflections can make it easier to notice patterns in a student's thinking and identify gaps in her body of knowledge. Any of these exercises can be modified to suit a student's stage of learning, work load, and instrument. A prompt can also act as a starting point from which free, self-directed reflective thinking and writing flows.

A Reflective Writing Prompt in Action

This is one example of a RWP in action. The situation is described, an example of a student's written reflection is given, and the teacher's response and follow-up discussion are summarized.

A sophomore violin student is learning the Sonata for Violin and Piano in d minor by Saint-Saëns. The teacher has noticed that she does not maintain a steady tempo in the "Allegro Molto" section and has tried to address the issue without any improvement. The teacher asks the student to record herself playing this passage and respond to the prompt called "…on your sound recorded." The teacher lets her know that the questions guide the process of evaluation, which is an important part of practicing effectively. The teacher tells the student that they will begin the next lesson by reading and discussing her written reflections.

…on your sound recorded

These prompts increase your awareness of sound through guided listening of a recorded section of your playing.

1. Record yourself playing a short passage of music. Listen to the recording and describe the tone quality you hear.

I played, recorded, and listened to the Allegro Molto section of the Saint-Saën sonata.

2. What aspects of your playing are easy to hear in a recording?

It is obvious that I am playing a fast off- the- string stroke at the beginning. When I get to the melody the accents are very sharp. It is very easy to hear the melody because it is so high and the notes are longer.

3. Describe one feature of the sound that surprised you.

The sixteenth notes on the last page got slower, and I didn't expect that. The accents come through really well, but I think I might be losing time on them. It gets louder, which is good, but it loses speed. So it seems like a really boring ending, which isn't a good way to finish the sonata.

4. Describe one aspect of your playing that you appreciate.

I like that the dynamics are really obvious, you can tell when I have accents. The quieter dynamics make the louder ones more exciting.

5. Listen to the recording again, following along with the score. Write down any features of the music that are missing or difficult to hear. List any inaccuracies that you notice.

The first shift in m.44 is messy.

I forgot the second E# in m.83.

The sixteenth notes that are slurred are sometimes uneven – m.105-106.

I played a B-natural in m.175.

The octaves in mm.199-200 are out of tune.

You can't hear the vibrato on the chords starting in m.229.

6. Write down one feature from the recording that you would like to change. Describe one practice strategy that will help you make this change.

I want to keep the sixteenth notes on the last page fast so the ending is really exciting! I will keep practicing it with a metronome to make sure I keep going.

Maybe I will try to take out the accents for a while and then see if I can put them back in later without losing speed.

7. Describe the difference between listening to your sound as you play and listening to your sound through a recording.

I can't hear the bow noise so much in the recording. The shifting sounds are more obvious in the recording then when I am playing through them.

When the student brings the reflection to her next lesson the teacher reads through it and notices the following things: the student mentions the accents many times in her reflection, she wrote about the tempo fluctuation on the last page and came up with a way to try to fix it, and she identified the shifting sounds as something more obvious in the recording. The teacher commends the student for recording, listening, and reflecting on her playing, recognizing that it can be uncomfortable to listen to oneself and conveying the importance of self-evaluation. The teacher then begins discussing the accents in the music and discovers that the student's favorite violinist emphasizes the accents and so she tried to emulate that sound. The teacher asks if using the metronome was a helpful technique to keep a steady tempo and the student responds that it was helpful, but that lessening the accents was the key to playing with a steady pulse. The teacher praises the student for evaluating her playing, thinking and writing the reflection, and for trying to solve her tempo issue. The teacher states that she looks forward to hearing that passage later in the lesson. Having noticed the shifts bothered the student in the recording, the teacher asks the student to focus her attention on shifting as she plays her scales for the week. The student begins to play and the lesson continues.

Important Features to Recognize

In this example, the teacher used the RWP to help a student become aware of her inconsistent tempo and practice her skills of self-evaluation. By reflecting on what she heard in a recording, the student noticed aspects of her playing that she was unaware of before; she used the new information to inform her future practice. Notice that the teacher was clear about her expectations for the student's response to the RWP and explained the goals of the exercise to the student beforehand. The student completed the prompts and the teacher took time to discuss the student's reflection during the lesson; this signals to the student that self-evaluation and reflective thinking are important. The teacher learned valuable information about the student, including what she values in a recording and that she noticed her own errors; the teacher then used this information to structure the rest of the lesson. Most of the work with the RWP happened outside of the lesson time and the few minutes spent discussing the RWP were productive and valuable. This example features a student who is comfortable working with RWPs and so the process went quite smoothly. Even if the student did not recognize her fluctuating tempo, she would still have a valuable experience practicing reflective thinking and self-evaluation. Not every instance of working with a RWP will work as well, but the potential is there. Working with these prompts can help music students develop the skills they need to become independent learners who practice effectively.

Prompts for Planning

Reflections…

…on a plan for the week

…on an upcoming lesson

…on a plan for a practice session

…on a plan for mental practice

…on a back-up plan

…on a warm-up plan

…on a structured plan

…on the perfect practice session

…on a plan for the week

These prompts help you create a practice plan for the week.

1. List the scales, exercises, etudes, and pieces that you want to work on this week. Be sure to include any specific assignments from your applied teacher, ensemble coach, or conductor.

2. Create one goal for each element on which you want to work. Be specific about what you want to learn or improve by practicing each element.

3. What are the two most important elements to practice every day this week? What elements can you practice every other day, less often, or as needed?

4. For each day of the week, schedule your practice time.

> The following questions are important to consider. Will you divide your practice into multiple sessions? What time of day are you most effective in your practicing? Do you need to work around any other commitments such as class, rehearsals, or work? How much time do you need between practice sessions to rest and recover, both physically and mentally?

5. For each practice session, determine the elements you will practice. Check in with #3 to make sure you are distributing elements across practice sessions according to these evaluations. If necessary, be sure to include a warm up.

6. List any materials or practice tools you will need for your practice sessions.

> Do you need a specific etude book or piece of music? Will you need any of the following items: a pencil, eraser, notebook, tuner, metronome, timer, audio recorder, or video camera? Be sure to include any items that will contribute to your physical comfort during practice. Items that might be helpful include a water bottle, a snack for breaks, a sweater, and comfortable shoes.

7. How can you prepare your music to make your practicing easier? Consider if you will need to make a photocopy of your part in order to avoid a page turn or write in fingerings and markings from your applied teacher.

8. Explain two ways that you can practice away from your instrument. Consider listening to a recording, analyzing the structure of a piece, or engaging in mental practice. Schedule three times throughout the week when you can engage in these activities.

…on an upcoming lesson

These prompts encourage you to anticipate and prepare for your next lesson, helping you shape the learning experience you want.

1. Write down one question you want to ask in your next lesson.

2. Describe one thing that you would like to have happen in your next lesson and explain why this is important to you.

3. List three things you can do this week that will positively impact your next lesson.

> There is a wide range of things to try, here are some suggestions: getting a full night's sleep the night before, making sure you have all of your music at the lesson, using the metronome more throughout the week, changing your strings before your next lesson, using a specific practicing strategy during a passage, planning out your practice schedule, listening to more recordings, or performing for a friend.

4. If you had an extra fifteen minutes added to your lesson, how would you want to spend them?

…on a plan for a practice session

These prompts help you create a plan for a single practice session.

►Be sure to complete "…on a plan for the week" before responding to these prompts.◄

1. List the scales, exercise, etudes, and pieces that you will practice during this session.

2. For each element, describe the improvements you would like to make during this practice session.

3. For each element of practice, describe two practice strategies that would be appropriate to use.

4. Plan the order in which you will practice each element. Consider any preferences you have relating to technical or musical tasks.

5. Estimate the amount of time you will spend on each task. Include estimates for individual practice strategies and for the total amount of time you will devote to an etude or piece.

> Be sure to allot time at the beginning of your practice session to read your practice plan, stretch, and set up your music and learning tools. Be sure to include time at the end of your practice session for evaluating your practice and modifying any future practice plan accordingly.

6. Explain how you will evaluate your effort and accomplishments in each area of your practice.

> How will you measure progress? What are the markers for improvement? Be as specific as you can. For instance, if you are working on a new skill, one mark of progress could be executing that skill three times in succession without any tension. Will you use a video or audio recording of your practice session to evaluate your progress?

…on a plan for mental practice

These prompts help you create a plan for mental practice.

1. Write down the passage of music that you want to practice.

2. Explain the goals you want achieve through mental practice?

3. Describe the best circumstances in which to engage in mental practice. Consider the time of day to practice, the location, and any distractions you might face.

4. Estimate the amount of time you will devote to mental practice.

5. Plan out the techniques and skills you will use during your mental practice.

…on a back-up plan

These prompts help you create a back-up practice plan that supports your goals through positive alternatives.

1. Describe one hypothetical situation that would prevent you from practicing according to your original practice plan. How might a back-up plan be helpful in this situation?

2. Write down one scale that you are very comfortable playing. Describe one way to play this scale as a warm up and one way to play this scale as a technique builder.

3. Take a look at your practice plan for the week and write down the three most important elements to address.

4. Choose one element to practice away from your instrument and explain one mental practice technique you can use.

5. For each of the remaining two elements, describe one practice strategy you can use that supports your goal.

6. Write down the order in which you will practice your scale and the two elements. Imagine that you have a very limited amount of time at your instrument, perhaps twenty minutes, and estimate the amount of time you will spend on each element. Write down an appropriate time and place in which to complete your mental practice.

7. Explain two benefits of practicing according to this back-up plan.

…on a warm-up plan

These prompts contribute to a positive performance experience by helping you plan an effective warm-up.

1. Describe your musical and expressive goals for each piece you will perform.

2. Describe one way to activate and center your listening. You might consider playing a distinct interval from the repertoire that consistently focuses your listening or perhaps playing a special melody helps sensitize your ear to the tone quality.

3. Write down one challenging passage in each piece that is helpful to review before a performance.

4. Write down one passage from each piece that is very comfortable and helps establish the mind set necessary to play the piece.

5. Describe one exercise that helps you stay relaxed and centered before a performance.

6. Write down the key and patterns for the scale and arpeggio series you will play. Consider a key that is related to your repertoire or one that is especially comfortable to play.

7. Describe any pre-performance activities that are a helpful addition to your warm-up. Consider including stretching, deep breathing exercises, relaxation techniques, meditation, or visualizations.

8. Use these elements to write out the order for your warm up. Specify the amount of time you will spend on each element. Be sure to leave extra time for setting up and tuning carefully.

…on a structured plan

These prompts help you organize your practice session according to the structure of your piece.

1. Create a formal map of the piece. Include sections, phrases, important cadences and transitions. Be sure to include the major key areas of the movement, the time signature, and the metronome marking.

2. Describe the playing techniques used in this movement.

3. Write out a practice plan using the information from #1 and #2. Include the amount of time you intend to spend on each element of the plan. Use the following guidelines:

> a. Set the key of your scale and arpeggios to be the same as the key of the piece. Select one technique from the movement to incorporate into your work on scales and arpeggios. Plan out how you can use the movement's metronome marking to play the scales and arpeggios at different speeds.

> b. Select one passage from each large section of the piece on which to work. Set an improvement goal for each passage. List two practice strategies that will help you reach each goal.

> > Examples of these include improved intonation, improved rhythmic accuracy, increased tempo, cleaner articulations, or greater expressivity.

> c. Plan out the order for working on the passages.

> > Here are some possibilities: plan to work on each passage in the order that they occur within the movement, plan out the passages in reverse order, plan to work on the difficult passages before the easier passages, plan to work on similar passages back to back.

> d. Next, plan a way to work on the transitions within the movement. This should include transitions between large sections and important transitions between smaller phrases. When writing down the transitions you intend to practice, be sure to describe the function of the transition.

> e. Next, plan a large section of the movement to play through. Describe your technical and expressive intentions for this section.

> f. Finally, be sure to plan out ways to evaluate your practice.

> > For example, if you record your practice session, you can plan the portions to which you will listen. Another possibility is evaluating the practice strategies for effectiveness and efficiency. Use the "…on your sound" prompt for more guidance in evaluating your playing.

…on the perfect practice session

These prompts encourage you to imagine a perfect practice session that inspires you to approach a better practice experience in new ways.

1. Imagine and give a description of your perfect practice session. Consider the following questions.

> a. Where would you be—in your favorite practice room, in a great concert hall, in a beach house? Describe what you would see.

> b. What time of day would be your ideal time to practice? Describe your breaks—would you take a quick swim in the ocean, would you chat with your best friend, would you do yoga with your favorite instructor?

> c. List the scales, etudes, or pieces you would work on during your practice session. Give five practice strategies that you would use during your practice.

> d. Describe the sound you would create during your practice; be sure to include technical and expressive qualities.

> e. What goal would you achieve after your practice session—would you advance a technical skill, master a difficult passage, or find the perfect interpretation for a phrase of music?

> f. Describe your feelings during practice—would your focus be sharper, would you feel calm or energized, would you be playful or serious?

2. Reread the description of your perfect practice session. How would you feel if your next practice session matched your description?

3. What are three things from your perfect practice session that you could make happen the next time you practice? Explain any modifications that would need to be made to bring you closer to your perfect session.

4. Could you recreate the feelings you imagined in your perfect practice session in your everyday practice? How might you overcome an obstacle that prevents you from approaching your practice this way?

5. Explain two ways of working to achieve your perfect practice session.

Prompts for Practice Strategies

Reflections…

…on a new practice strategy

…on a tool

…on distractions

…on expressive intentions

…on creating a practice strategy

…on shifting

…on sautillé

…on an interpretation

…on differing interpretations

…on a new practice strategy

These prompts deepen your understanding of a new practice strategy, guiding you to incorporate it into your regular practice.

1. Explain the way the new practice strategy works.

2. Describe the goal of the practice strategy.

3. Describe the ideal context in which to use this new practice strategy.

4. List two different passages from your repertoire to which you could apply this practice strategy.

5. What are the limitations of this practice strategy?

6. Explain one important concept to keep in mind in order to effectively use this practice strategy.

…on a tool

These prompts examine a familiar practice tool and encourage you to create new ways to use it.

1. What tool do you use in your practice on a regular basis?

2. Explain the way the tool works.

      a. What practice or performing goals does this tool help you achieve?

      b. What are the benefits and dangers of using this tool?

3. Describe three ways you have used this tool. Be sure to include the specific passages of music to which you applied this tool.

4. Describe a musical exercise or passage for which this tool is not useful?

      a. How can you modify the passage in order to benefit from using the tool?

5. What is one thing you wish this tool did better?

6. Consider how you would practice if this tool was broken for a day. Describe an alternative method of practicing that would have an effect similar to that achieved by the tool.

7. Explain two new ways of using this tool in your practice.

> Consider using this tool in conjunction with a different practice strategy, in a different musical context, or at the extreme ranges of the tool's capabilities.

8. The next time you practice, choose one new way to use this tool and then respond to the following prompts.

      a. Describe the experience of using the tool in a new way.

      b. Did you need to modify the musical passage or adjust the tool's settings in order to make the tool work for you? If so, describe the changes you made.

      c. What are the benefits of using the tool this way? What are the barriers to using the tool this way?

…on distractions

These prompts make space for any distracting thoughts that arise during practice and bring awareness to the way you redirect your focus.

1. While you practice, if you get distracted by something, write down what it is. There is no need to elaborate or explain anything about the distraction, just jot it down and refocus your attention.

> This could be a thought that is unrelated to the task at hand, an interruption caused by another person or a pet, an alert from your phone or computer, an impulse to watch the clock, feelings of tiredness or hunger, a problem with your instrument or metronome, or a desire to be doing or playing something different.

2. After you are done practicing, read through your list of distractions. Does anything surprise you about your list? Were any distractions helpful or inspiring?

3. Describe the nature of your distractions. Be sure to consider the individual quality and total quantity of distractions.

> The following questions might help you: Did one distraction reoccur multiple times? Did several things cause your focus to wander? Were you distracted for long spans of time or were the distractions fleeting?

4. Evaluate the nature of your focus once you shifted it back to the appropriate task.

> The following questions might help you reflect: Did your focus weaken or sharpen? Could you rest your attention on a task for lesser or greater amounts of time? Did focusing use more or less energy?

5. Describe your ideal state of mind for practicing that includes directed focus, freedom of thought, and distractions. What would this feel like? How would this change your practice?

6. Describe two ways to move closer to this ideal state of mind during your practice.

7. Explain one way to minimize the negative impact distractions have on your practice.

…on expressive intentions

The purpose of these prompts is to explore expressive possibilities of a single phrase.

►Be sure to record this exercise.◄

1. To begin, imagine one way a phrase could sound. Write down your expressive intentions and the sound quality they motivate.

> You may want to associate pictures, actions, emotions, colors, gestures, characters, temperatures, or flavors to this interpretation.

2. Explain the technique you will use to achieve the imagined sound.

►Play the phrase with this sound and intention in mind.◄

3. Describe what you heard. What expression came through?

4. Imagine another possible sound for this phrase. Describe these expressive intentions and the quality of sound you want to hear.

> This interpretation can deepen the previous one or it can be inspired by something new. Consider the function of the phrase within the surrounding music, does that suggest a possible mode of expression? How do you want the audience to feel when they hear this phrase?

5. Describe the technique you think is suitable for these expressive choices.

►With a clear sense of the expressive intention, play the phrase again.◄

6. Describe the sound and expression you heard.

> Consider the tone color and resonance of the instrument, the pace of events, and the dynamic inflection. Did the phrase have more or less energy than the last phrase?

10. In this way, continue to explore different sounds for the phrase. What makes some interpretive choices more effective than others?

11. Describe the way your understanding and conception of the phrase has changed because of this experimentation.

12. Describe the relationship between expression, technique, and sound.

… on creating a practice strategy

These prompts investigate a technically challenging passage and help you create a new practice strategy that you can use to overcome it.

1. Select a passage of music that poses a significant technical challenge to you. Explain what makes this passage difficult to master. Consider any of the following elements: a new skill is involved, the passage features intervals that are difficult to hear, or the tempo is uncomfortable.

2. Describe your playing goal for this passage, including the sound quality and expressive intentions you desire.

3. For each task involved in playing this passage, explain one way to make it easier. This might include slowing an action down, using a metronome or tuner, pausing between intermediate steps, or increasing the amount of preparation time before executing a task.

4. Explain one way of incorporating each task into playing a scale. How will practicing the task within the context of a scale be helpful?

5. Create a new practice strategy to improve this passage and explain how to use it. Keep in mind your original goals for this passage relating to the sound quality and expressive intentions. Explain the benefits of using this practice strategy.

6. Identify one other passage where your new practice strategy could be effectively applied. Are there ways to modify your new practice strategy in order to use it in other challenging places?

…on shifting

These prompts refine your understanding of the shifting technique by practicing how to explain it to someone else.

1. What is the purpose of shifting? Be sure to consider practical and expressive functions.

2. Describe the circumstances that would be appropriate for shifting? Give three musical examples from your repertoire of ideal places to use a shift.

3. Describe the circumstances where shifting should be avoided. Find one musical example from your repertoire where a shift would be detrimental.

4. Make a step-by-step set of instructions for shifting. Be as detailed as possible so that a person could read and execute a shift according to your guidelines.

> Include instructions for hearing the pitches involved in the shift in advance. Consider the physical motions necessary to shift, including a description of the static and moving parts of the body. Describe the relationship between the left hand and right arm. Consider issues relating to the speed and timing of a shift. Include any visual or tactile ques that are helpful while shifting.

5. What are three common mistakes that can happen while shifting? Suggest two helpful ways to avoid or correct each mistake.

6. Select one practice strategy, exercise, or etude that addresses the technique of shifting. What features of this exercise make it effective?

…on sautillé

These prompts refine your understanding of the sautillé bowing technique by practicing how to explain it to someone else.

1. What is sautillé? Describe the different sounds this bow stroke can generate.

2. Give two musical examples that feature sautillé. Describe how this bow stroke contributes to the expressive quality of the music.

3. What bow stroke should be consistent and comfortable before playing sautillé?

4. Make a step-by-step set of instructions for playing sautillé. Be as detailed as possible so that a person could read and play this bow stroke according to your guidelines.

> Include directions for physical motions that make clear the role of each part of the right arm. Explain how to coordinate the bow stroke with the left hand. Give advice for finding the part of the bow that is ideal for this bow stroke. Be sure to address issues of physical tension and release.

5. What are two obstacles to playing sautillé? Explain two methods that can be used to overcome each obstacle.

6. Select one practice strategy, exercise, or etude that addresses the sautillé bow stroke. What features of this exercise make it effective?

7. What place does the phrase, "Do More by Working Less" have in your discussion of sautillé? Reflect on the roles of trust and control within this bowing technique.

…on an interpretation

These prompts reflect on the experience of listening to a recording to deepen your understanding of a piece.

1. Find a recording of the piece you are learning and list the performers it features.

2. As you listen, jot down adjectives that describe the sound. Include descriptions related to the following aspects of the piece: the mood, character, intensity, emotional content, and tone colors.

3. Describe the features of the piece that this interpretation highlights.

4. Describe one interpretive choice you did not appreciate and explain the reasons that you disagree with this approach.

5. Describe two qualities of this recording that you enjoyed.

6. Evaluate the recording's fidelity to the score.

7. Explain the way listening to this interpretation changed your conception of the piece.

…on differing interpretations

These prompts put two different recordings in conversation with each other to expand your concept of a piece.

►Complete two responses to *"…on an interpretation"* before responding to these prompts.◄

1. Describe one aspect of the piece that was played differently in each recording.

2. Describe one feature of the piece that both interpretations upheld.

3. Based on the recordings and your own experience, describe two features of this piece that are important to express in order to capture its essence.

4. Describe two ideas gleaned from listening to these interpretations that you would like to experiment with in your playing.

5. Which of these recordings would you recommend to a friend? Write out two things you would tell your friend to expect when listening to this interpretation.

Prompts for Evaluation

Reflections…

…on two expressions of a phrase

…on your sound recorded

…on practicing a piece

…on your inner dialogue

…on mental practice

…on the initial learning process

…on memorizing and refining

…on the process

…on a lesson

…on a masterclass

…on a composer's work

…on two expressions of a phrase

These prompts assess the difference in sound between two expressions of a single phrase.

1. Listen to the recording of the phrases played for the **"…on expressive intentions"** prompt. As you listen to each interpretation of the phrase, jot down any words that come to mind.

2. What were the most salient features in the two phrases? Describe the similarities and differences you heard in the two phrases.

> You may want to include observations about the expressive nature of the phrase, the sound quality, or any technical issues that become apparent.

3. Compare the experience of hearing a phrase while you were playing it and hearing it through a recording?

4. After listening to the recording, how would you approach the expressive interpretation of this phrase? Describe the ideal sound quality for this phrase and the technique necessary to achieve it.

…on your sound recorded

These prompts increase your awareness of sound through guided listening of a recorded section of your playing.

1. Record yourself playing a short passage of music. Listen to the recording and describe the tone quality you hear.

2. What aspects of your playing are easy to hear in a recording?

3. Describe one feature of the sound that surprised you.

4. Describe one aspect of your playing that you appreciate.

5. Listen to the recording again, following along with the score. Write down any features of the music that are missing or difficult to hear. List any inaccuracies that you notice.

6. Write down one feature from the recording that you would like to change. Describe one practice strategy that will help you make this change.

7. Describe the difference between listening to your sound as you play and listening to your sound through a recording.

…on practicing a piece

These prompts use quick responses to expand your awareness of practicing a piece.

1. Write down the name of the piece that you will practice and on which you will reflect.

2. After each time you practice or perform this piece, briefly answer the following questions:

      a. What did you practice?

      b. What is getting better?

      c. What still needs work?

…on your inner dialogue

These prompts bring awareness to the words you say to yourself while practicing.

1. The next time you make a mistake, become impatient, or get frustrated with yourself during your practice session, write down your internal response. This should be a WORD-FOR-WORD transcript of what goes on inside your head at this moment. Do not be afraid to use expletives or excessive punctuation marks.

2. Describe how you feel—physically, mentally, and emotionally—at this moment.

3. Explain the circumstances that caused this response.

      a. Finish your practice session and then reflect on the following questions.

4. When speaking these words to yourself in the moment of frustration, what was your tone of voice? Consider if the words sounded harsh, humorous, or sympathetic.

5. What function do these words serve? Consider these possibilities: do these words release tension, lighten the mood, provide a momentary pause, or spur you to continue?

6. How often do you hear yourself speaking in this manner?

7. How does your inner dialogue influence your attitude towards the music, your approach to the tasks of practicing, and your feelings about yourself?

…on mental practice

These prompts evaluate your experience of mental practice.

1. Did anything about mental practice surprise you?

2. Describe one challenging aspect of mental practice.

3. Explain the features of mental practice that make it easier than practicing at your instrument.

4. Describe one benefit you gained from mental practice.

5. Explain one thing you would do differently in your next mental practice session.

…on the initial learning process

These prompts review your initial process of learning a piece of music.

1. Describe any preparations you completed before starting to practice. This might include listening to a recording of the piece, studying the score, or singing your part. How long did you spend preparing in this way?

2. Reread your entries from "*…on practicing a piece*." How many days did you spend learning the notes, rhythms, articulations, and dynamics?

3. Describe the biggest challenge you faced in the early stages of practicing.

4. Explain two practice strategies that helped you the most in this initial stage of learning.

…on memorizing and refining

These prompts help you evaluate the process of memorizing and refining a piece in preparation for a performance.

1. When did you begin to feel comfortable playing the piece from beginning to end? Describe how it felt to play the entire piece at this point.

2. Describe your process of memorizing this piece. Include the order in which you memorized the piece and the amount of time it took.

3. Explain two strategies you used to memorize this piece.

4. If your piece involves an accompanist, describe the process of rehearsing. How many times did you rehearse with your accompanist? How long did you work together before if became comfortable?

5. Write down one aspect of this piece that you refined in the later stages of preparation. Explain the practice strategy you used to make this change.

6. Describe your pre-performance preparations. This might include mental rehearsal, listening to a recording of yourself, or playing for a friend.

…on the process

These prompts explore the process of learning and performing a piece.

1. Evaluate the performance by considering the way you felt as you performed, your opinions about the performance, and the feedback you received from your teacher.

2. Describe the general arc of the process of practicing and performing this piece.

> a. What part of the process did you enjoy the most?

> b. What was the biggest challenge you encountered throughout the process?

> c. What part of the process was meaningful to you?

3. Explain one thing you learned through the process of practicing and performing this piece.

4. Looking back at the process of practicing a piece, what do you think had the biggest impact on your performance?

5. Explain two things that you would like to do differently in the process of practicing a new piece.

> a. Describe the potential effect each change will have on the performance.

> b. Explain one practical way to make each change happen.

…on a lesson

These prompts gives you an opportunity to reflect on your lesson.

1. In chronological order, list everything you played during your lesson. Include any warm-up exercises, scales, etudes, and repertoire.

2. Describe your favorite part of the lesson.

3. What aspects of your playing did you feel good about in your lesson?

4. If your teacher explained a new concept to you, explain it in your own words.

5. Summarize the feedback you received during your lesson. How do you feel about this feedback?

6. Describe significant contributing factors that influenced your lesson this week.

> For example, did you practice consistently throughout the week? Did you listen to a recording that influenced your interpretation? Did you use a metronome or tuner?

…on a masterclass

These prompts rethink concepts presented in a masterclass in order to expand and deepen your individual practice.

1. Describe the background of the guest giving the masterclass. How might this shape the guest's comments?

2. Summarize the guest's comments for each performance. Describe the main focus of his or her work with each performer.

3. Describe the reaction each performer had to the guest. Consider if they were receptive to new ideas and the degree to which they were able to make changes in their playing.

4. Write down some of the language and metaphors the guest used throughout the class.

5. Explain three practice strategies the guest suggested to use.

6. List three places in your repertoire where you could apply each practice strategy.

7. Explain one compelling concept the guest shared.

    a. Explain the reasons this concept is meaningful to you.

    b. Describe one way you can incorporate the guest's ideas into your own playing or practice.

8. Write down one question you would like to ask the guest.

…on a composer's work

These prompts consider the composer's perspective by imagining a dialogue between performer and composer in the form of a letter.

1. Write a letter to the person who composed the piece you are working on.

Use the following prompts to inspire your letter.

a. Write a letter as if you are good friends with the composer. You can by honest in sharing your opinions about the piece; including your likes and dislikes, the challenges of the piece, and your expectations for its performance.

b. Write a letter that seeks advice from the composer. You might be curious about the process of writing the piece, wonder about the composer's source of inspiration, or pose a question about a passage. Be sure to include why these questions are meaningful to you.

c.   Write a letter detailing your interpretive approach to the piece. You can relate what brought you to the piece, describe the process of learning it, and then share your interpretation of the piece.

Prompts for Oneself

Reflections…

…on yourself

…on your instrument

…on your perspective

…on fear

…on anxiety

…on recreating your inner dialogue

…on goals

…on yourself

These prompts encourage you to appreciate your strengths and acknowledge the way you have overcome your weaknesses.

1. Write down two compliments that you hear about yourself.

2. If someone were to hear you play for the first time, what do you think they would notice?

3. Describe your sound. What do you like most about it?

4. Describe two aspects of playing music that challenge you.

5. Explain how you have worked to overcome these challenges.

6. Who has helped you grow as a musician?

7. Name your #1 Biggest Fan!

…on your instrument

These prompts explore the way you relate to your instrument.

1. Tell the story of how you came to play your instrument.

2. What aspects of playing your instrument are most exciting to you?

    Consider if your instrument is capable of playing in ways that are not available to other instruments. Also, reflect on the repertoire that features your instrument.

3. Explain one aspect of playing music that you did not expect.

4. What do you admire most about yourself?

5. Describe three aspects of your personality that make you a good musician.

6. Explain how your choice of instrument is a good match for your personality.

…on your perspective

These prompts call attention to the special perspective that you bring to the world as a musician.

1. Recount you favorite memorable moment that involves music.

2. How do you enjoy music outside of playing your instrument?

3. What is your secret to enjoying music?

4. Describe the ways you can contribute to the field of music.

5. How do you, as a musician, positively shape your community?

…on fear

These prompts help you consider fear from multiple perspectives.

1. Describe one aspect of playing music that scares you.

2. How does this fear make you feel?

3. Describe any experiences you have had that contribute to this fear. Consider whether this fear is grounded in reality or whether it is primarily imagined.

4. Do you know of anyone else that shares this fear?

…on anxiety

These prompts increase your awareness of anxiety.

1. In preparing for a performance, describe one aspect of playing that makes you feel anxious.

2. Describe the way it would feel to perform without this anxiety.

3. Describe the impact this anxiety has on your life.

4. What are the benefits of holding on to this anxious feeling?

5. What are the benefits of letting this anxious feeling go?

6. Describe one practical thing you can do to ease your anxiety.

…on recreating your inner dialogue

These prompts encourage you to recreate your inner dialogue using language that supports a positive approach to moments of frustration.

1. Create three alternative responses you can say to yourself during difficult moments of practice. Your responses can serve a function similar to that described in #5 of "…on your inner dialogue."

> If you need help getting started, imagine someone else's voice and borrow reaffirming language he or she frequently uses; this could be a teacher, friend, coach, celebrity, or even your favorite imaginary character. Be sure that these responses are memorable and meaningful; you should have a positive reaction to hearing yourself say them in your head. Try to incorporate words with a light, playful, or friendly tone that work towards positive, supportive, and encouraging attitudes. Most importantly, make sure that these words manifest your authentic voice.

►The next time you encounter a difficult moment, speak to yourself using these phrases.◄

2. Describe the experience of using a different inner dialogue.

> Consider the following questions: How did you feel as you said them? What was your initial reaction to hearing these words? Did this response change your approach to the practice task or the music? How does this inner dialogue make you feel about yourself?

3. Modify these responses to make them more effective during moments of frustration. Try to think of language that sounds more authentic, possesses stronger personal significance, or has greater positive connotations.

…on goals

These prompts clarify the intermediate steps and processes involved in achieving your goals.

1. What is your greatest dream of playing music? Describe this in as much detail as possible.

2. Describe the way you would feel if your dream became real.

3. Describe some of the challenges of achieving this dream.

4. Describe one goal that supports your dream.

5. What are three intermediate steps that need to be accomplished in order to achieve this goal?

> Be sure to describe the relationship between these steps: can they happen simultaneously or is a specific sequence of steps required? Estimate the amount of time it will take to accomplish each step.

6. For each step, describe one thing you can do on a daily basis that contributes positively to its completion.

7. List two people that can help you achieve your goal. Describe one way that each person can help.

8. As you work towards your goal, if faced with a difficult situation, to whom can you turn for support? Describe the ways this person positively impacts you.

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