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The Effect of Coping Verses Mastery Models on the Level of Self-Efficacy for Self-Regulated Music Learning, Self-Efficacy for Classical Guitar Playing and Guitar Achievement for Undergraduate Non-Music Majors

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ABSTRACT

The purpose of this study was to investigate the effects of learning via mastery versus coping models on self-efficacy for self-regulated music learning, self-efficacy for classical guitar performance, and achievement in classical guitar performance. A secondary purpose of this study addressed the extent to which these three variables were correlated. The sample consisted of 86 undergraduate non-music majors recruited from two beginning guitar courses at a large Canadian university who reported limited previous experience with playing the guitar. Achievement in classical guitar performance was measured using the researcher-constructed Classical Guitar Performance Rating Scale. Data regarding participants' self-efficacy for self-regulated music learning and self-efficacy for classical guitar performance were collected using two researcher-constructed scales. Internal reliability coefficients for the two efficacy measures were high (> .90). Internal reliability coefficients for the performance achievement measures ranged from poor (.59) to fair (.72). Interjudge reliability coefficients for the achievement measure were very high (> .95).

Participants were randomly assigned to a coping or mastery model instructional condition and received eight instructional video model treatments, once per week over an eight-week time span. Participants performed a 16-measure classical guitar piece after a two-week orientation period and at the conclusion of the eight-week intervention period. Participants completed the Self-Efficacy for Self-Regulated Musical Learning Scale and the Self-Efficacy for Classical Guitar Performance Rating Scale at the outset of the study. These measures were administered again following the eight-week intervention.

Results showed that self-efficacy for self-regulated learning significantly increased following exposure to the video model intervention. A significant interaction effect was found for the pre-and postinstruction self-regulated learning sub-dimension of self-instruction with the coping condition demonstrating significantly greater pre-to posttest gains than the mastery condition. Significant main effects for time and condition were found on the self-efficacy for classical guitar performance scale, however no significant interaction effect was obtained. No significant interaction effect was found for the performance achievement variable. Many significant correlations were found between participant experience variables and pre- and posttest scale results. The strongest correlation (*r*=.75) was between efficacy for self-regulated learning and efficacy for performance at posttest.

Keywords: guitar, classical guitar, self-regulation, self-regulated learning, self-efficacy, coping model, mastery model, assessment

SUMMARY FOR LAY AUDIENCE

Do beginner guitarists who watch excellent guitarists (mastery) become more confident at learning and playing the guitar compared to those who watch a guitar player who struggles and gets better over time (coping); and do they become better players?

I taught two on-line guitar classes for non-music majors and 86 people joined my study. I made a questionnaire to rate guitar playing ability and two questionnaires to rate confidence for learning and playing the guitar. Students were placed in two groups. One watched an excellent guitar player (mastery) and the other watched a struggling player (coping). I gave them a new video to watch, each week for eight weeks. They didn't know they were watching different videos. They thought the guitar model was a past student in the class when really, she was a guitar performance major. Both groups recorded and submitted a short guitar piece during week two and week ten. I wanted to know if one group got better than the other by watching the videos. At the beginning of the study students rated their confidence for learning and for playing the guitar. After eight weeks they rated themselves again. I wanted to know if one group became more confident from watching the videos.

At the end of the study the coping group felt more confident for learning to play guitar than the mastery group; but not significantly. Part of the questionnaire asked them how confident they were to self-instruct themselves. The coping group felt significantly more confident than the mastery group to self-instruct themselves. The coping group was much more confident that the mastery group for playing the guitar, however, the coping group was also more confident to begin with, so these results might be a biased. An expert guitarist rated all the student video submissions. His results showed that both

groups played significantly better than when they began, however, one group was not better than another. Students who were confident for learning the guitar were also confident for playing the guitar; they also played better.

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work in memory of my father John who encouraged me to follow my dreams and to my mother Arlene who was always supportive, warm-hearted and generous.

They will see in the distant pinprick stars
the returning light of the dawn we made together…

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CHAPTER 1

STATEMENT OF THE PROBLEM

Introduction

Learning from models is a core aspect of human behaviour. Bandura (1986) proposed four general cognitive processes involved in learning from a model. First, learners extract information from models by selectively focusing on salient aspects of the model's behaviour. Next, the acquired information must be coded and retained in memory as a visual or verbal abstract representation. This process involves modelled information being transformed into basic rules that capture the general pattern or style of a behaviour or task, thus allowing the information to serve as a generative guide for future emulation and elaboration. Physical and mental rehearsal, or practice, then plays a vital role in solidifying new performance skills. In this process, a mental representation is translated into behaviour or action, then compared to an internal standard. Finally, motivational processes play an essential role in the efficacy of learning. These processes may include direct, vicarious, or self-directed incentives and are influenced by learners' self-beliefs or self-efficacy regarding their abilities to achieve learning goals successfully (Bandura, 1997).

While Bandura's original conception of self-efficacy referred to self-beliefs related to the performance of previously learned behaviours (Bandura, 1977), Schunk (1996) expanded on this construct by differentiating between self-efficacy for performance, beliefs in "one's capability to execute a task successfully by implementing a previously learned set of skills and actions" (p. 11), and self-efficacy for learning, self-beliefs related to the "capability to acquire the skills and knowledge needed to perform a task" (p. 12). Mastery experiences, or one's own successful personal achievements, are the most potent source of self-efficacy, followed by vicarious experiences or estimates of one's own abilities based on the observation of others (Bandura, 1997). Where vicarious experiences are involved, research (e.g., Schunk et al., 1987) has indicated that one's self-efficacy is impacted to a greater extent by observing models that are perceived to be more similar to oneself. In particular, Bandura (1997) proposed that learning by observing a coping model, one who begins a task unsure of themselves but through persistent effort improves their performance, would have more positive effects on the self-efficacy of novice learners than observing a mastery model, one who performs a task effortlessly and without error from the outset.

The concept of mastery and coping models originated within the clinical psychology literature (Bruch, 1975; Kazdin, 1973; Meichenbaum, 1971). Meichenbaum (1971) described coping models as those that improve progressively until they achieve mastery of the task and exhibit decreasing levels of distress as they demonstrate strategies for dealing with difficult situations. Pintrich and Schunk (2002) noted that individuals who doubt their ability to engage with a task successfully might experience feelings of inhibition, but as they observe others of a similar ability level succeeding and being rewarded, those same individuals may become more open to performing a task. Coping models may also display strategies for performance improvement that are useful to novices (Kitsantas et al., 2000), and by demonstrating success through perseverance, coping models can reduce the adverse effects of setbacks and encourage sustained motivation.

Research investigating the effect of learning from coping models on individuals' self-efficacy and performance achievement has produced mixed results within a number of disparate domains. While some studies have found superior effects for coping models versus mastery models on both performance achievement and self-efficacy (e.g., Kitsantas et al.,2000; Schunk & Hanson, 1985; Schunk et al., 1987), other studies have found superior effects for coping models on self-efficacy only (e.g., Weiss et al., 1998), or have found no significant effect for model type (Clark & Ste-Marie, 2002). For example, Kitsantas et al., (2000) examined the effect of learning from either a mastery or coping model on the acquisition of dart-throwing skills. All coping model participants viewed videos of a model progressively improving their performance over the course of 15 learning trials, while mastery model participants viewed an expert model correctly demonstrating dart throwing technique on all trials. Results indicated that participants who viewed the coping model showed greater performance achievement and reported higher self-efficacy for performing the skill than those who viewed the mastery model. Schunk and Hanson (1985) investigated how children's self-efficacy for learning and achievement levels were influenced by viewing either a peer coping model, a flawless teacher model, or a no-model condition as the participants learned subtraction skills. Results indicated that observing a peer coping model attempting to find solutions led to higher self-efficacy for learning and higher achievement levels than observing the teacher model or the no-model condition. Schunk et al., (1987) examined the effect of mastery versus coping models on the acquisition of math skills. Participants (N=80) were assigned to treatment conditions in which they viewed videos of either a mastery model performing all mathematical operations correctly or a coping model that initially made mistakes in calculations but gradually made fewer errors and eventually improved to where their behaviours matched those of the mastery model. In addition, mastery models verbalized achievement beliefs indicating high self-efficacy ("I can do that one"), high ability ("I'm good at these"), low task difficulty ("that was easy"), and positive attitude ("I like working these"). Coping models initially made statements related to low achievement and self-efficacy beliefs (e.g., "I'm not sure I can do that"; "I'm not very good at these") but progressed to verbalizing coping behaviours (e.g., “I need to pay attention to what I am doing,” and, “I’ll try to do my best”) and eventually similar belief statements as mastery models. Results indicated that participants who observed the coping models showed significantly higher scores for self-efficacy and skill performance on math tasks when compared to those who had observed the mastery model. However, Clark and Ste-Marie (2002) found contrasting results in their research exploring the effects of model type on the acquisition of diving skill. The coping model demonstrated seven dives with one or more performance errors and a final dive performed correctly while verbalizing statements indicating a task difficulty progression from very difficult to less difficult and a task self-efficacy progression from low to high. The mastery model performed each dive correctly and made one statement indicating either high self-efficacy or low task difficulty beliefs. Results indicated no significant effect of model condition on either self-efficacy beliefs or skill acquisition. Thus, the question of the potential effects of mastery versus coping models remains open.

Only Lewis (2018) has explored the effects of coping and mastery models on self-efficacy within a music-learning context. Undergraduate vocal music students (N=9) described how their self-efficacy perceptions progressed over the course of a semester, from reliance on external assessments to reliance on self-appraisal. One aspect of the study required participants to document three experiences that fostered or hindered performance beliefs during a voice lesson, a practice session, and a musical performance. Data were coded to coping and mastery model a priori themes within the vicarious experience component of self-efficacy, which focuses on observing peers and role models. Data indicated that student self-efficacy was positively affected by interactions with coping models in a real-world setting. For example, one student’s self-efficacy was bolstered by observing peers as they developed their technique. The student stated that observing the coping model allowed her to understand "what works, what doesn't work, and why" (Lewis, 2018, p.139). Observing a peer's work ethic was important for another student, motivating her to work harder.

Social cognitive theory posits that motivation moves people to action through the cognitive processes of forethought and self-regulation in anticipating valued outcomes as well as setting goals and planning for the future (Bandura, 1997). Self-regulated learning (SRL) has been defined as active behavioural, cognitive, metacognitive, and highly motivated participation in one's own learning and has been positively related to academic (Zimmerman, 1986) and musical (McCormick & McPherson, 2003) achievement. Zimmerman's (2000) Cyclical Model of Self-Regulation (see Figure 1) outlined the interrelationship between both metacognitive and motivational processes and individuals' learning. In this model, SRL is viewed as an open-ended cyclical process occurring in three phases: forethought, performance, and self-reflection.

Figure 1

Cyclical Phases Model of Self-Regulation (1st Version). Adapted from Zimmerman (2000)

TABLE 1 Phase Structure and Subprocesses of Self-Regulation

Cyclical self-regulatory phases		
Forethought	Performance/volitional control	Self-reflection
Task analysis Goal setting Strategic planning Self-motivation beliefs Self-efficacy Outcome expectations Intrinsic interest/value Goal orientation	Self-control Self-instruction Imagery Attention focusing Task strategies Self-observation Self-recording Self-experimentation	Self-judgment Self-evaluation Causal attribution Self-reaction Self-satisfaction/affect Adaptive-defensive

The forethought phase refers to thought processes and personal beliefs that precede learning endeavours. During this phase, individuals analyze a task, set learning goals, and plan how to reach those goals. Task analysis involves both goal setting and strategic planning. Strategic planning involves selecting methods appropriate to the task at hand and the context within which one works. The task analysis process is given momentum through motivational beliefs related to self-efficacy, outcome expectations, intrinsic interest, and goal orientation, all of which influence the selection of learning strategies.

The performance phase refers to processes that occur during the learning effort that affect concentration and performance. In this phase, students execute given tasks, monitor their progress, and engage in self-control strategies that maintain cognitive and motivational engagement aimed at bringing the task to completion. The self-control process involves self-instruction, attention focusing, selection of task strategies, and use of imagery. Self-instruction strategies, such as engaging in self-talk while learning a difficult musical passage, can help individuals monitor and control concentration during the learning process. Self-observation relates to metacognitive abilities, such as tracking salient aspects of one's performance, the conditions surrounding those aspects, and the effects they produce (Zimmerman & Paulsen, 1995).

The third phase of the model, self-reflection, refers to reactions and responses that occur subsequent to learning. This phase encompasses two processes: self-judgement and self-reaction. Within self-judgment, self-evaluation refers to comparing one's performance to a standard or goal and may include incorporating teacher feedback, comparison to peers or oneself, or considering evaluation from an examination or jury. Self-evaluative learners trace their performance deficits back to causes that may be corrected to improve performance (Zimmerman, 2000). This process of attributing reasons for success or failure may stimulate self-reactions that can positively or negatively affect how individuals approach the forethought phase during future learning sessions. Specifically, attributional self-judgments are closely linked to two forms of self-reaction: a) self-satisfaction and b) adaptive inference. A learner's level of self-satisfaction will be connected to the amount of intrinsic value associated with a given task. Adaptive inferences refer to resolutions that learners make when reviewing a past performance; these inferences alter learners' future self-regulatory approaches. Such inferences may direct the learner toward new and potentially better types of performance self-regulation by encouraging a re-prioritizing of goals or selecting more effective strategies. However, such inferences may also prompt defensive mechanisms intended to protect individuals from negative emotions. Such defensive inferences may take the form of self-handicapping and result in procrastination, task avoidance, or apathy (Zimmerman, 2000). Zimmerman later revised his cyclical model (Zimmerman & Moylan, 2009), adding several dimensions to the Performance Phase. Metacognitive monitoring was added to the self-observation sub-phase, and several dimensions (e.g. help-seeking and environmental structuring) were added to the self-control sub-phase

Some music researchers have used Zimmerman's three-phase model of self-regulated learning as a theoretical foundation to explore questions concerning relationships among individual variables (e.g., age, ability) and self-regulated learning sub-dimensions. Some researchers have investigated all sub-dimensions found within each of the three phases (Osborne et al., 2021), while others have chosen to examine only select sub-dimensions, including self-instruction (Kim, 2008; Nielsen, 2001), task strategies (Leon-Guerrero, 2008; Oare, 2007); goal setting (Nielsen, 2001; Oare 2007) and metacognitive monitoring (Chung, 2006; McPherson et al., 2019). For example, Osborne et al., (2021) explored each of the sub-dimensions within

Zimmerman and Moylan's (2009) three-phase model as evident in first-year conservatory pianists (*N*=7). Over the course of a semester, participants completed diary entries which were then coded to self-regulation sub-processes within each of the model's three phases. Results from the forethought phase indicated that higher-ability pianists reported fewer goals and strategies than lower-ability pianists. Within the performance phase high, ability students engaged in more metacognitive monitoring, while low-ability students reported more instances of self-instruction. Kim (2008) conducted a collective case study utilizing practice journals and interviews with four college music majors. Part of the study focused on understanding how students self-instructed and self-guided their learning. Self-report data indicated that all four participants engaged in overt self-instruction by talking aloud during practice sessions. One participant stated that talking out loud when practicing "helps me think more clearly and be more specific" (p. 83). Another participant wrote in her journal, "When I'm frustrated with Bach, talk myself through it. I have studied the violin long enough that I can give myself a lesson."

Oare (2007) and Leon-Guerrero (2008) employed talk-aloud protocols to examine middle school instrumentalists' self-regulated learning task strategies. Both researchers were interested in investigating which task strategies novices used when practicing. Results from both studies indicated that only rudimentary task strategies were used. For example, repetition was used or referred to more frequently than other strategies, and repeating back to the beginning of the excerpt was the most often cited practice strategy. Oare (2007) also compared the types of goals that participants of differing experience levels set for themselves. Unsurprisingly, results indicated a large difference in the types of goals that middle school and conservatory students set for themselves, with middle school participants setting neither proximal nor distal goals, while conservatory students did set distal goals and sub-goals that changed in the moment during practice.

McPherson et al., (2019) compared the approaches of two first-year Bachelor of Music students across a semester as they prepared a piece for a performance jury. The two students were chosen for inclusion in the study because of their contrasting self-regulated learning tendencies. The participants were administered a microanalysis protocol at three points during the semester. Results indicated that the high-ability student engaged in metacognitive monitoring, which was on-task, challenging, and solution-focused, with the low-ability student exhibiting an almost opposite profile, engaging in less strategy use and problem-solving. Chung (2006) confirmed the use of metacognitive skills in Korean arts middle school piano students (*N*=25), with students identifying their own strengths and weaknesses, assessing task requirements, and applying strategies to overcome difficulties.

While the constructs of self-efficacy and self-regulation have been individually well-researched, the construct of self-efficacy for self-regulated learning is still an under-investigated area. Zimmerman et al., (1992) studied students' perceived efficacy for self-regulated learning strategies such as planning and organizing their academic activities, transforming instructional information through the use of specific cognitive strategies, motivating themselves to complete schoolwork, and structuring environments conducive to study. Results of the investigation indicated a significant causal pathway between self-efficacy for self-regulated learning, self-efficacy for achievement, and academic achievement. In other words, self-efficacy beliefs concerning the ability to be self-regulated predicted self-efficacy for academic achievement and, by extension, achievement outcomes.

Only Miksza and Tan (2015) have investigated self-efficacy for self-regulated learning within the domain of music education. The researchers provided all participants with narrative descriptions and demonstrations of practice strategies from an expert model. The experimental group received additional modelling of self-regulatory approaches for goal setting, planning, and self-evaluation. While results indicated larger gains in self-efficacy for self-regulated learning in the experimental condition, differences did not rise to the level of statistical significance. Nevertheless, this area of investigation needs further study before any conclusions may be drawn.

Statement of the Problem

Compared to other educational settings, music students spend a considerable amount of time practicing away from the direct guidance of their teachers (Sloboda et al., 1996). Thus, self-guided instruction is critical to the development of fundamental skills that may lead to future musical success (Miksza, 2012). As such, music practice should be examined in terms of the self-regulated processes that students develop and deploy to become more proficient musical practitioners (McPherson & Renwick, 2001). Although a substantial amount of descriptive and correlational research has emerged on the topic of self-regulation, there is an evident lack of experimental studies investigating causal effects that may be drawn from this theoretical framework.

Specific self-regulated learning sub-processes within Zimmerman and Moylan’s (2009) three-phase model of self-regulated learning have been shown to be affected by learning from models. Such sub-processes include strategic planning (Rymal et al., 2010) and intrinsic interest (Kitsantas et al., 2000) from the forethought phase, error detection, correction abilities (Black, & Wright, 2000; Blandin, & Proteau, 2000; Hodges et al., 2003), and task strategies (Law, & Hall, 2009) from the performance phase, and self-satisfaction (Clark, & Ste-Marie, 2007; Kitsantas et al., 2000), self-judgments, self-reactions (Rymal et al., 2010) and adaptive attributions for performance (Kitsantas et al., 2000) from the reflection phase. However, research investigating the effect of learning from models on these sub-processes in a music education context has yet to be undertaken.

Ritchie and Williamon (2007) have argued that music education research should focus on the relationships between self-efficacy for musical learning and specific self-regulated learning strategies. Previous research in other domains has indicated that coping models may effectively teach learners self-regulatory skills and raise their level of self-efficacy for applying such skills (Schunk & Zimmerman, 2007, p. 21). While mastery models demonstrate correct performance and indicate confidence and positive affect, coping models show skill progression over trials, increasing self-efficacy, and strategies for learning skills (Schunk et al., 1987). These aspects may be particularly relevant to novice musicians. Coping models also demonstrate how to monitor performance, detect errors, choose goals and strategies for overcoming errors, and demonstrate self-teaching. Currently, no known studies examine the relative effects of learning via mastery versus coping models on self-efficacy for self-regulated music learning or achievement in music performance. The present study seeks to fill this gap in the literature by examining the effects of modelling on select sub-processes within Zimmerman and Moylan's (2009) three-phase model of self-regulated learning, including goal setting, task strategies, self-instruction, and metacognitive monitoring.

Purpose

The purpose of this study is to investigate the relative effects of learning via mastery versus coping models on self-efficacy for self-regulated music learning and achievement in classical guitar performance.

Research Questions

1) How does learning via mastery versus coping models affect self-efficacy for self-regulated music learning?
2) How does learning via mastery versus coping models affect self-efficacy for classical guitar performance?
3) How does learning via mastery versus coping models affect classical guitar performance achievement?
4) To what extent are the variables of self-efficacy for self-regulated music learning, self-efficacy for music performance and classical guitar performance achievement correlated?

Definitions

Self-Regulated Learning and Performance: "refers to the processes whereby learners personally activate and sustain cognitions, affects, and behaviours that are systematically oriented toward the attainment of personal goals" (Zimmerman & Schunk, 2011, p. 1)

Self-Efficacy: "belief(s) in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3)

Self-Instruction: "overt or covert descriptions of how to proceed as one executes a task" (Zimmerman & Moylan, 2009, p. 302)

Task Strategy: "refers to analyzing tasks and identifying specific advantageous methods for learning or performing various components of a task" (Zimmerman, Kitsantas, 2005)

Goal Setting: "Goal setting refers to deciding upon specific outcomes of learning or performance" (Zimmerman, 2000)

Metacognitive monitoring: "Metacognitive monitoring or self-monitoring refers to informal mental tracking of one's performance processes and outcomes, such as one's learning processes and their effectiveness in producing learning" (Zimmerman & Moylan, 2009, p. 303)

Delimitations

Participants in the current study are delimited to undergraduate, non-music majors with little or no prior experience with guitar performance. Due to differences in guitar playing styles (i.e., plectrum, fingerstyle) and the extensive range of musical styles afforded the instrument (e.g., jazz, heavy metal, folk, punk etc.), non-classical guitar performance was purposely excluded from this study. This choice was made to delineate and measure aspects related to classical guitar technique and repertoire more precisely.

CHAPTER II

REVIEW OF LITERATURE

In this chapter, research relevant to the current study will be discussed according to the following categories: (a) self-regulated learning theory, (b) measurement of self-regulated learning, (c) conceptions of self-efficacy, and (d) the role of coping and mastery models in fostering self-efficacy.

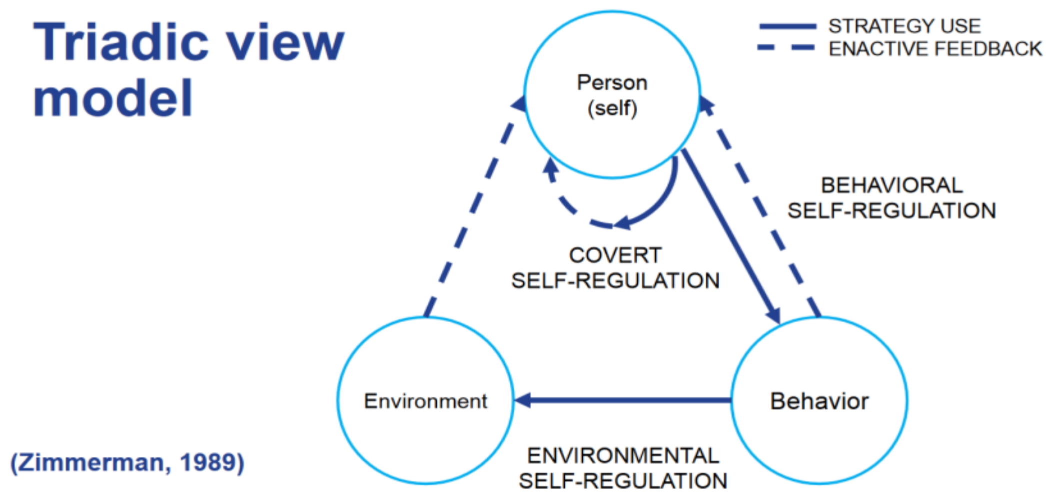
Self-Regulated Learning Theory

Self-regulated learning (SRL) has been defined as active behavioral, cognitive, metacognitive, and highly motivated participation in one's own learning and has been positively related to academic (Zimmerman, 1986) and musical (McCormick & McPherson, 2003) achievement. Compared to other educational settings, instrumental music students spend a considerable amount of time practicing away from the direct guidance of their teachers (Sloboda et al., 1996). This self-guided instruction is critical to the development of fundamental skills that may lead to future musical success (Miksza, 2012). As such, instrumental music practice may be examined in terms of the self-regulated processes that students develop and deploy in order to become more proficient musical practitioners (McPherson & Renwick, 2001).

Early theoretical models of self-regulated learning were based on static conceptions of SRL assessment that emphasized students' perspectives and beliefs. These studies conceptualized SRL as a trait-based construct, a relatively stable characteristic that predicted future academic performance. One of the first researchers to explore the construct of SRL was Barry Zimmerman (1989). Zimmerman's earliest model of SRL was framed within Bandura's triadic model of social cognition, which posits that self-regulated learning is determined not merely by personal processes but also by environmental and behavioral events in a reciprocal fashion (see Figure 2).

Figure 2

Triadic Forms of Self-Regulation. (Zimmerman, 1989)



Within Zimmerman's model, behavioural self-regulation concerns self-observing in order to adjust one's method of learning (e.g., changing a strategy), whereas environmental self-regulation refers to adjusting aspects of one's environment (e.g., finding a quiet place to practice). Covert self-regulation takes place when individuals monitor and adjust affective and cognitive states (e.g., focusing attention on one's fingers and not the audience when performing). The degree to which learners productively monitor these three sources of SRL affects the quality of their strategy adjustments and the nature of their beliefs in themselves as learners.

Zimmerman's second model of SRL, known as the Multi-Level Model (2000), represents the four stages in which individuals acquire SRL skills. The Multi-Level

Model incorporated cognitive modelling theories and the way SRL emerges through modelling. Within the Multi-Level model, SRL is thought to develop through four distinct stages or levels: (a) observation, (b) emulation, (c) self-control, and (d) self-regulation. During the observation stage, the observer picks up important task information from a model, including strategic skills, performance standards, and motivational orientations. The perceived similarity to a model (e.g., age, gender) will also influence the observer's motivation to engage and develop the skill. Emulation then takes place as the learner attempts the task and subsequently receives feedback that helps establish a standard for correct performance. In contrast to imitation, in which a learner attempts to copy a movement or task exactly, emulation involves capturing the general pattern or style of a behavior or task. Motivation to develop the task results from both the social and motoric consequences that the learner receives. It is important to note that the source of learning for these first two levels is primarily social, whereas the source of learning for the latter two levels emanates primarily from the self. The self-control stage occurs when students can perform a task automatically in the absence of a model while at the same time comparing the performance to their internal standard. Students accomplish this by drawing on recollections of a model's performance. Learning strategies that focus on skill development rather than outcomes are more important during this phase. Finally, self-regulation takes place when students can adjust behaviors to changing conditions. During this phase, learners choose and adapt strategies according to their desired outcomes with little or no reliance on a model. Students at this level can usually perform a piece with minimal attention to processes; cognitive resources focus on the performance outcome without harmful consequences. For instance, a musician's attention can be shifted from the technical elements required to perform a musical passage (e.g., fingering) to its overall musical goal, such as communicating the emotive character of the musical piece.

Several studies (e.g., Zimmerman & Kitsantas, 1997, 1999, 2002; Kitsantas et al., 2000) have found empirical support for aspects of Zimmerman's Multi-Level Model (2000). For example, Kitsantas et al., (2000) examined the effects of observing different types of models on the acquisition of dart-throwing skills. In the study design, some of the participants observed an adult model who demonstrated a multistep dart-throwing process and provided social feedback. This group of participants performed significantly better on the dart-throwing task than those who learned from performance outcomes only. Another group received only social feedback; these participants performed better than individuals who practiced on their own but not as well as those who learned from the model. Individuals who received instruction from the model also measured higher on self-efficacy and intrinsic interest measures than those in the other two conditions. The study establishes the sequential advantages of learning with a model before attempting enactive learning.

Over time, SRL became increasingly viewed as a context-specific set of processes that students engage in during the learning process, compared to a fixed characteristic such as an ability or personality trait. To support this developing understanding, Zimmerman and McPherson constructed a six-dimension framework they referred to as Dimensions of Musical Self-Regulation. The six dimensions include: (a) motive, dealing with self-motivation, how individuals come to value their learning, and why they choose to continue their learning in spite of many obstacles; (b) method, referring to the types of skills, knowledge, and understanding that are required when deciding which approach is superior when engaging with music; (c) time management, referencing how individuals successfully plan and manage their time efficiently; (d) behaviour, dealing with an individual's ability to self-monitor and evaluate his or her own performance; (e) physical environment, relating to controlling the space where learning takes place; and (f) social factors, concerning an individual's disposition to reach out to knowledgeable others, or to acquire support materials when faced with difficulties.

Several music researchers (e.g., Miksza et al., 2012; Feely, 2017; McPherson & Renwick, 2001) have attempted to validate the six-dimension theoretical framework of self-regulation by investigating music practice across disparate age groups. For example, McPherson & Renwick (2001) studied the common trends and individual differences of seven beginner band students aged 7-9 years over a three-year period and found low levels of self-regulation and virtually no evidence of deliberate practice strategies. Miksza et al., (2012) investigated intermediate band students' (median age 12 years) self-regulated behaviors during individual music practice. The researchers found significant relationships between self-regulation ratings and writing on music ($r = .55$), varying tempo ($r = .42$), and repeating four or more measures ($r = .41$). Finally, Feely (2017) explored the self-regulated learning ability of adults in a beginner classical guitar class over a 12-week study interval using weekly self-report data that was coded using the six dimensions of McPherson and Zimmerman's framework. Results indicated that participants utilized a sophisticated set of SRL skills to achieve their goals, including seeking out internet-based resources when faced with challenges, creating self-teaching resources such as flashcards, and choosing to practice in short intervals to better attend to their task and to encourage accuracy.

Zimmerman's third SRL model (see Figure 3) explains the interrelation of metacognitive and motivational processes for individuals' learning. In this model, SRL is viewed as being an open-ended cyclical process occurring in three phases. In the forethought phase, individuals analyze a task, set goals, and plan how to reach those goals. This process is given momentum through motivational beliefs that foster learning strategies. Students execute given tasks during the performance phase, monitor their progress, and engage in self-control strategies that maintain cognitive and motivational engagement aimed at bringing the task to completion. During the self-reflection phase, self-assessment of the task and attributions of success or failure are decided. These assessments and attributions stimulate self-reactions that can positively or negatively affect how individuals approach the forethought phase during the upcoming learning sessions.

Figure 3

Cyclical Phases Model of Self-Regulation; Version 1 (Zimmerman, 2000)

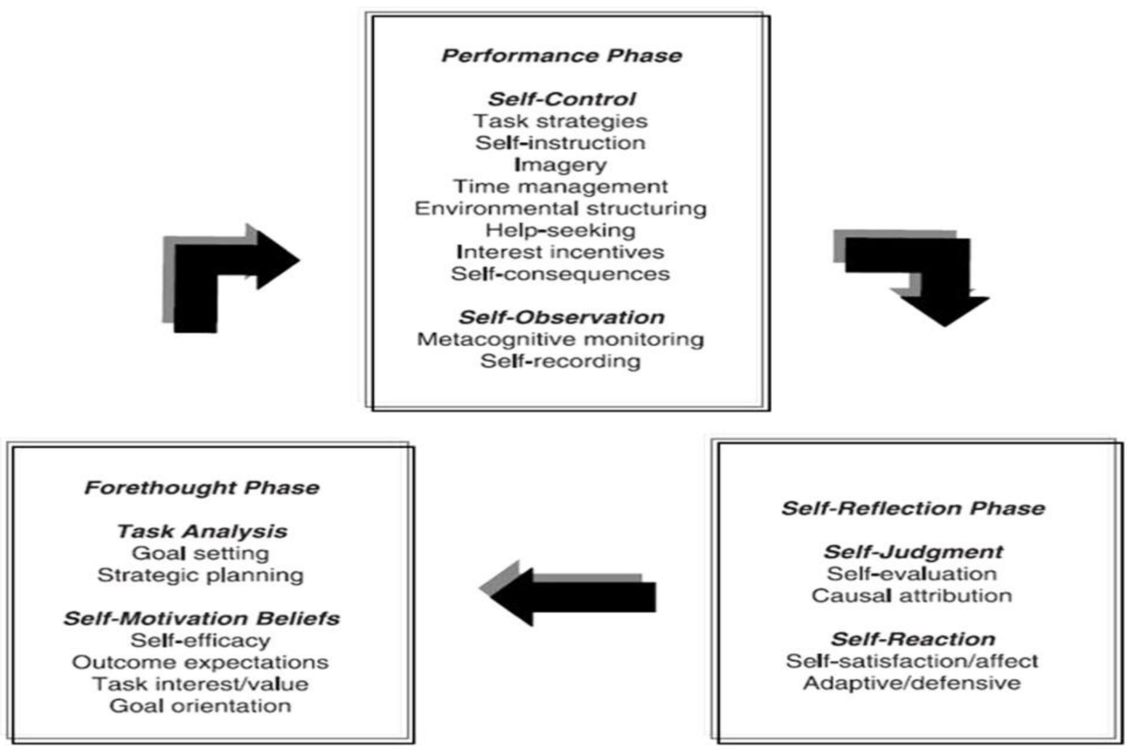
TABLE 1 Phase Structure and Subprocesses of Self-Regulation

Cyclical self-regulatory phases		
Forethought	Performance/volitional control	Self-reflection
Task analysis	Self-control	Self-judgment
Goal setting	Self-instruction	Self-evaluation
Strategic planning	Imagery	Causal attribution
Self-motivation beliefs	Attention focusing	Self-reaction
Self-efficacy	Task strategies	Self-satisfaction/affect
Outcome expectations	Self-observation	Adaptive-defensive
Intrinsic interest/value	Self-recording	
Goal orientation	Self-experimentation	

Zimmerman further revised his cyclical model (Zimmerman & Moylan, 2009), adding several SRL aspects to the Performance Phase; metacognitive monitoring was added to the self-observation sub-phase, and several dimensions from the previously mentioned six-dimension framework (e.g., help-seeking and environmental structuring) were added to the self-control sub-phase (see Figure 4).

Figure 4

A Cyclical Phase Model of Self-Regulation Integrating Metacognitive Processes and Key Measures of Motivation (Zimmerman and Moylan, 2009)



There are two sub-categories within the forethought phase: task analysis and self-motivational beliefs. Thinking about a task and how to successfully engage with it requires planning and forethought: thus, goal setting plays a major part in this process (Zimmerman, 2008). Locke and Latham (2002) have stated that, "a goal is the object or aim of an action, for example, to attain a specific standard of proficiency, usually within a specified period of time" (p. 705). Pintrich & Schunk (1996) have posited that individuals who set clear goals are more likely to gain pleasure and feel confident in their skills and abilities. Further, they are more likely to focus their efforts while learning, to work harder, and to persist when they have been confronted by difficulties. The second aspect of task analysis is strategic planning. Individuals must use methods appropriate to the task and the setting they are working in if they are to develop mastery-level performance skills. In this way, appropriately chosen strategies can aid performance by guiding motor-skill execution. Self-regulated learners use new strategies as goals are met during the learning process, adjusting their goals and strategy choice in an ongoing way.

Goal setting and strategic-planning processes are affected by self-motivational beliefs, including goal orientation, self-efficacy and intrinsic interest. Consequently, they play important motivational roles in the success of individuals during self-regulated learning. Bandura has described self-efficacy as the belief that one can attain a specified goal (Bandura, 1982) whereas outcome expectations are described as one's belief in the ultimate ends of a performance task (Bandura, 1997). Self-efficacy beliefs are related to specific tasks. For instance, a guitarist who is required to sight read a difficult musical passage in a concert setting may have low self-efficacy. However, if the musical passage were novice-level, high-self efficacy beliefs would likely be present. In a similar manner, individuals with high self-efficacy tend to set higher goals, make greater efforts to complete a task and persist longer in their efforts (Schunk, 1990). According to Zimmerman and Kitsantas (1997), self-regulated learners also report a higher intrinsic interest in learning. Finally, self-regulated learners have been shown to adopt hierarchical processing goals that are personally rewarding and are understood to be steppingstones toward lifelong development (McPherson & Zimmerman, 2002).

According to McPherson and Zimmerman (2002), there are two main processes within the second phase of SRL: self-control and self-observation. The self-control process involves the strategies of self-instruction, attention focusing, task strategies, and imagery. At its core, the self-control process concerns an individual's ability to focus on what they are doing and on their performance. Thus, self-instruction, such as engaging in self-talk while learning a difficult musical passage, can help individuals monitor and control concentration during the learning process. Imagery, or forming mental pictures, is another self-control technique. Musicians often use imagery to plan and model what they are learning to play (McPherson & Zimmerman, 2002). The second component within the performance phase, self-observation, concerns metacognition. Individuals who demonstrate self-observation track salient aspects of their performance, the conditions surrounding those aspects, and the effects they produce (Zimmerman & Paulsen, 1995). Schunk and Zimmerman (1998) have noted that experts track what they are doing at a detailed level; musicians often monitor their body, hands and finger positions in order to better adapt those elements to the demands of expert musical performance.

Particularly noticeable among those features associated with self-observation is self-recording. Although used extensively in written form within the academic domain, it is rarely used by musicians (McPherson and Zimmerman, 2002, p. 342). However, McPherson and Zimmerman (2002) have proposed video recording as an effective way for musicians to engage in self-regulating behaviours. Individuals who observe themselves practicing have been shown to perform more musically, with greater rhythmic precision, and with a more secure technical foundation (Feely, 2017).

The third phase of Zimmerman's SRL theory contains two processes: self-judgement and self-reaction. Self-evaluation concerns examining one's performance and attributing to it causal significance. This process involves comparing one's performance to a standard or goal and may include teacher feedback, comparison to peers or oneself, or evaluation from a music examination or jury. In addition to peer comparison, self-evaluative learners trace their own performance deficits back to causes that can be corrected on an ongoing basis. In this way, through effort, they can improve their performance (Zimmerman 2000). Individuals with high self-efficacy who receive negative performance evaluations may attribute those evaluations to a lack of preparation or to poor task strategies. Those with low self-efficacy, however, will be more inclined to attribute their poor performance to a lack of ability.

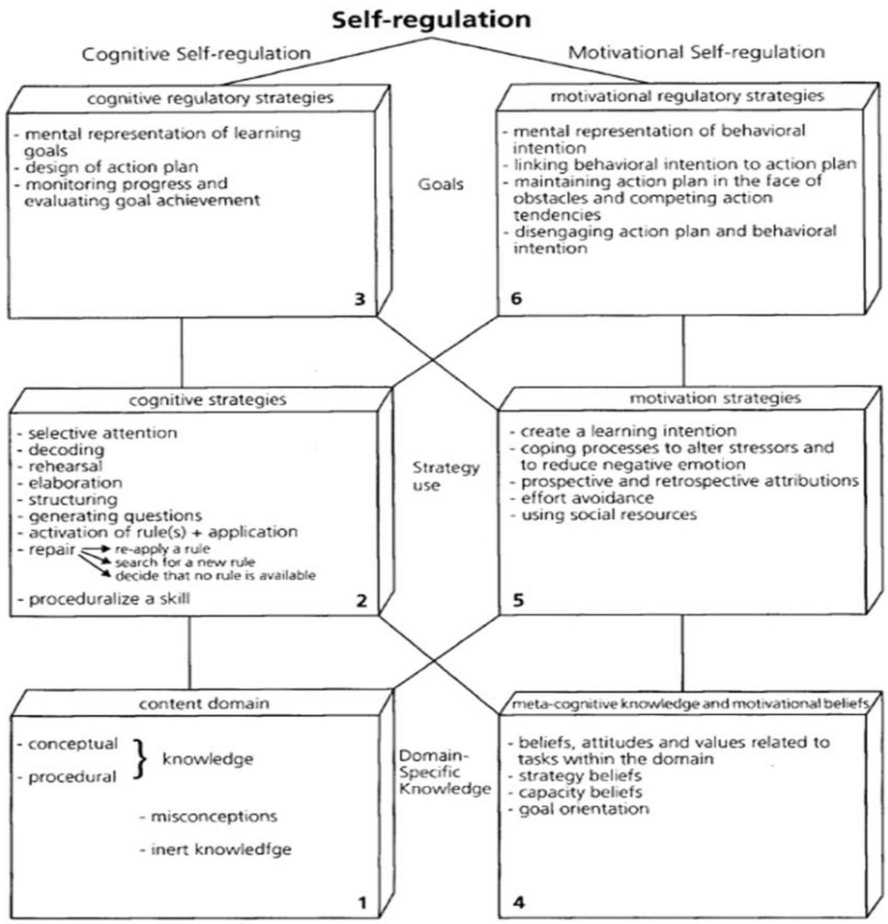
Attributional self-judgments and self-evaluation are closely linked to two forms of self-reaction: a) self-satisfaction, and b) adaptive inference. The former concerns perceptions of satisfaction or dissatisfaction regarding one's performance and the emotional affect associated with it. This is important because learners base their future efforts to learn on their present performance. An individual's level of self-satisfaction will also be linked to the amount of intrinsic value that a learner places on a given task. In other words, those who value the task they are engaged with will experience more angst and dissatisfaction if their performance is rated poorly, compared to those who view the task as of little worth. These individuals will not become overly distressed by unfavorable task results.

Adaptive inferences refer to resolutions that learners make when reviewing a past performance; they serve to alter the self-regulatory approach in the future. These adaptive inferences direct the learner toward new and potentially better types of performance self-regulation and are arrived at either by re-prioritizing goals or by selecting more effective strategies. On the other hand, defensive inferences serve to protect an individual from dissatisfaction and negative emotions when they engage in future learning. These defensive inferences, known as self-handicapping strategies, include helplessness, procrastination, task avoidance, and apathy. While these reactions may protect individuals from negative emotions, they also may limit personal growth (Zimmerman, 2000). Because self-reactions affect the forethought phase of self-regulated learning and, therefore, future learning and performance, individuals should be encouraged to adopt adaptive inferences and resist defensive inferences.

Monique Boekaerts was an early SRL researcher whose initial writing dates back more than 30 years (e.g., Boekaerts, 1988). Her research has sought to explain how goals play a role in shaping SRL. Boekaerts' (1996) Six Component Model is structural in design (see Figure 5). Her purpose for constructing the model was to examine the theoretical underpinnings of two strongly related aspects of self-regulated learning; cognitive and motivational systems (Boekaerts, 1996, p. 100).

Figure 5

Six Component Model of SRL. (Boekaerts, 1996)

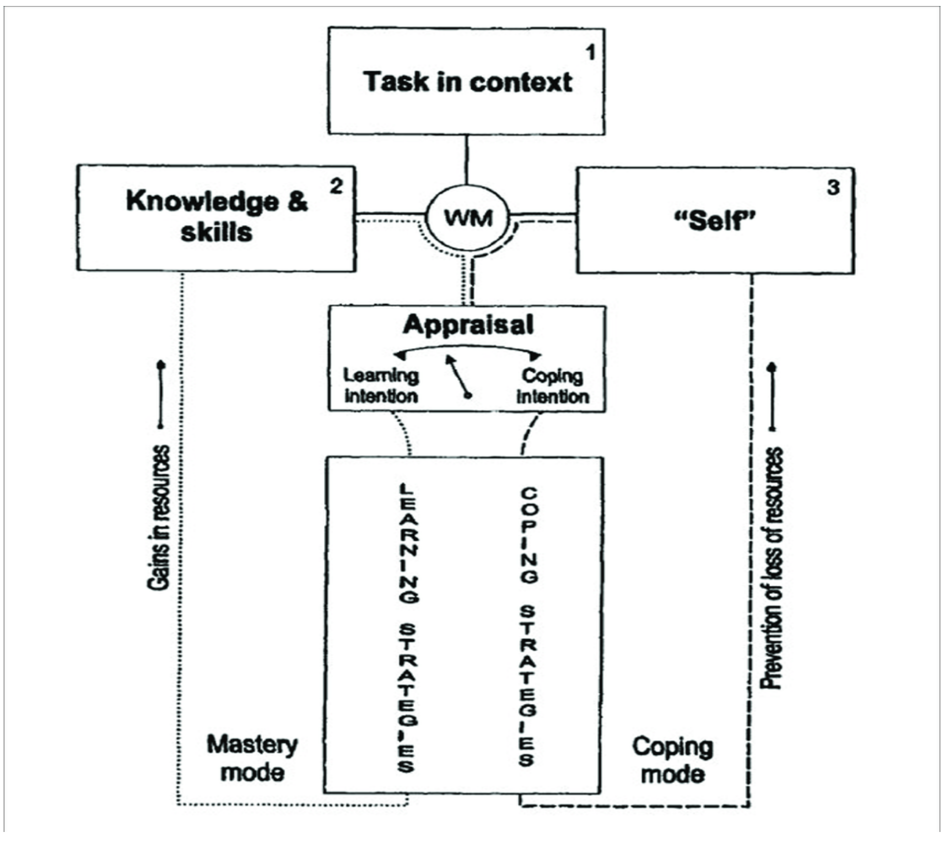


The model posits that SRL consists of two basic mechanisms, the cognitive self-regulation system and the motivational self-regulation system. According to Boekaerts, the components of the cognitive and motivational systems are strongly interrelated and operate in a parallel and reciprocal manner around three levels of complexity: (a) domain-specific knowledge, (b) strategy use, and (c) goals. Thus, the components of the motivational and cognitive systems interact with each other at three levels. Three components comprise the cognitive self-regulation mechanism, as seen on the left side of the model, including content skills (domain-specific knowledge and skills), cognitive strategies (cognitive processes and behavior that students actually use during learning experiences), and cognitive and regulatory strategies (cognitive processes and behavior that are directed toward accomplishing self-set goals) (Boekaerts, 1996, pp. 105-107). Three components also comprise the motivational self-regulation system, including metacognitive knowledge and motivational beliefs (self-referenced cognitions reflecting students' beliefs and values in relation to a task or domain), motivational strategies (attempts on the part of the student to produce favorable states of mind and positive outcomes), and motivational self-regulatory strategies (forming a clear mental representation of their behavioral intention). The model has been used to gain insight into domain-specific components, train teachers, construct instruments for research, and design intervention programs (Panadero, 2017).

In contrast to her Six Dimension Model (1996), the focus of Boekaerts' Adaptable Learning Model (1992, 2000) was on describing the dynamic aspects of SRL and providing a theoretical base for understanding research findings among disparate psychological constructs such as motivation, emotion, metacognition, self-concept, and learning (see Figure 6). The first source of information is the to-be-learned task (component 1). This includes student perceptions of the learning situation, such as task, teacher instructions, and context. The next source of information is domain-specific knowledge and skills that have been successful in that domain before, such as declarative and procedural knowledge, cognitive strategies and metacognitive knowledge that is pertinent to the learning situation (component 2). The third source concerns the students' values, motivational beliefs, and hierarchy of goals activated by the learning task (component 3). Students appraise each learning task with these three sources of information (appraisal component). The degree to which students feel that the task is important to them and that they believe that they will be successful will direct them to one of two parallel processing modes. Positive appraisal will steer students to the mastery or learning mode where individuals endeavor to increase competence, while negative appraisals lead to the coping or well-being mode, where students seek to protect their ego or restore their well-being.

Figure 6

Adaptable Learning Model. Boekaerts & Niemivirta (2000)



In 2000, Boekaerts put forward new ideas on the goal paths of student behavior, integrating top-down and bottom-up processes (Boekaerts & Niemivirta, 2000). A decade later, she published an extended version of the Adaptable Learning model she called the Dual Processing Self-Regulation Model (Boekaerts, 2011). In this third model, she drew attention to the different purposes of self-regulation during the learning process, emphasizing two different strategies that play an integral role in this model: volition strategies and emotional regulation strategies (Boekaerts, 2011). Boekaerts explains that SRL has three purposes: a) to expand knowledge and skills, (b) to prevent threats to the self and loss of resources so that one's well-being is kept within reasonable bounds, and (c) to protect one's commitments by using activities that channel attention from the well-being pathway to the mastery pathway (Boekaerts, 2011, pp. 410-411). In the Dual Processing Model, student appraisal of a task determines which goal path will be activated. When a task is in harmony with an individual's goals and needs, that person will seek to gain mastery resulting in positive cognitions and emotions; the learner is directed to the growth pathway. Boekaerts identifies this as top-down self-regulation because the pursuit is driven by the student's own values, needs, and goals. Tasks deemed threatening to an individual's well-being activate negative cognitions and emotions, resulting in strategies focused on protecting the ego; the learner is directed to the well-being pathway. According to Boekaerts, this is a bottom–up process because it is activated by cues in the learning environment. For instance, a student wants to perform well in band class but is surrounded by disruptive students who produce a suboptimal learning environment. The well-intentioned student is now more concerned with the self than with the task. This mismatch between goals and environment produces negative emotions, which must be regulated if the personal goal is to be accomplished. A third option, understood as being corrective, takes place when an individual redirects strategies from the well-being pathway to the master/growth pathway, as illustrated in the above band example.

Most of the empirical support for this model comes from the researcher-created On-Line Motivation Questionnaire (OMQ) (Boekaerts, 2002) which was designed to assess students' judgment of a learning situation in real classroom situations. Four main areas of the model were explored empirically by Boekaerts, including: (a) cognitive appraisals and how they determine prospective, anticipatory positive and negative emotions and learning intentions, (b) gender differences in prospective cognitions, (c) the effect of potential cognitions and emotions on learning intentions and (d) interventions in secondary schools focusing on developing metacognitive knowledge and developing opportunities to use deep-level processing.

Measurement of Self-Regulated Learning

Early self-regulated learning models (mid-1980's) were based on static conceptions of SRL assessment that emphasized students' perspectives and beliefs. These studies conceptualized SRL as a trait-based construct, a relatively stable characteristic that predicted future academic performance. As such, assessment tools such as questionnaires, surveys, and interviews were emphasized (Zimmerman, 2008).

Paul Pintrich's contribution to the field of SRL is important for a number of reasons; he helped clarify the SRL theoretical framework (Pintrich & de Groot, 1990), conducted empirical work on the relationship between SRL and motivation, and his questionnaire, the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich et al., 1993) has been one of the most widely used self-report measures in SRL literature (Schunk, 2005). The MSLQ is an 81-item, self-report instrument comprised of three sections: (a) motivation, which assesses student goals and value beliefs regarding the ability to succeed in a course and related levels of anxiety; (b) learning strategy, which deals with students' use of cognitive and metacognitive strategies; and (c) time and study environment management, concerning student management of different resources (1990). Many studies in the music research literature (e.g., Austin & Berg, 2006; Feely, 2017; McPherson & McCormick, 1999, 2000; McCormick & McPherson, 2003, 2006; Miksza, 2006; Nielson, 2004) seeking to investigate the relationship between musicians' abilities to self-regulate their practice and other variables related to music learning have used an adapted version of the MSLQ to assess these variables. For example, McPherson and McCormick conducted a series of four studies (1999; 2000; 2006; McCormick & McPherson 2003) with young musicians preparing for instrumental music examinations. The initial study (1999) utilized a questionnaire that included 17 items on self-regulatory learning components (e.g., cognitive strategy use, self-regulation) and motivational components (e.g., intrinsic value, anxiety/confidence) of instrumental learning. In addition, scales were used to assess the quantity and frequency of practice factors. Participants were pianists (*N*=190) ranging from 9 to 18 years of age. Measure items were adapted to reflect music practicing. The cognitive strategy sub-dimension included questions focused on rehearsal strategies (e.g., "If I can't play a piece, I always stop to think about how it should go"), elaboration strategies (e.g., "I'm always thinking about pieces I'm learning by singing them through in my mind") and organizational strategies (e.g., "The first thing I do when I practice is ask myself what do I need to practice most today?"). The self-regulation sub-dimension included questions focused on effort management (e.g., "I sometimes forget to do my practice"). This scale also provided the basis for measurement in the three subsequent studies, although alpha internal reliability coefficients were not reported for the sub-dimensions or for the complete measure.

Multiple regression analyses revealed that more cognitively engaged individuals practiced informal and creative activities alongside more formal aspects such as repertoire and technical work and were more intrinsically interested in learning their instrument. These results supported earlier studies (e.g., McPherson 1996, 1997) which demonstrated a relationship between cognitive strategies and achievement.

The sample for the second study (McPherson, and McCormick, 2000) consisted of piano, string, brass, and woodwind performers (*N*=349) aged nine to 18 years. As a means of extending the researchers' first investigation, questions addressing general and performance self-efficacy, as well as attributions of success or failure were added to the measure. Results of regression analyses for the second study indicated that for each of the three achievement levels examined (beginner, intermediate, advanced) the best predictor was performance self-efficacy, which explained between 18% and 28% of the variance. A slightly smaller sample (*N*=332) of piano, string, brass, and woodwind students in the same age group was used for the third study. McCormick and McPherson (2003) removed items assessing attributions of success or failure for this study and added one question to the organizational strategy sub-dimension and removed one question from the rehearsal strategy sub-dimension. Results of structural equation modelling found significant relationships among cognitive strategy use, self-regulation, self-efficacy and performance achievement. The final study (McPherson & McCormick, 2006) utilized a larger sample (*N*=686) and employed a further-revised measure. The researchers re-labelled the self-regulation factor as "practice regulation" and increased the number of items used to assess the dimension. Cognitive strategy items were re-worded to reflect more musical specificity (e.g., "When I'm practicing, I experiment to try and make my pieces sound more expressive") and a greater focus was placed on items assessing metacognitive monitoring (e.g., "When I'm practicing, I think about how many mistakes I'm making and how I can correct them"). Structural equation modelling revealed fewer paths involving cognitive strategy use and practice regulation compared to the previous research. The researchers posited that the item changes made the intentions of the questions clearer to the participants and that this may have accounted for the differences in results.

Other music researchers have combined certain subsections of the MSLQ with other assessment measures to investigate the constructs of self-regulation and motivation (Miksza, 2006) or to compare the practicing profiles of orchestra students (Austin & Berg, 2006). For example, Miksza (2006) explored aspects of self-regulation and motivation in junior high school band students' ($N = 175$) music practicing using a 43-item, researcher-adapted questionnaire. Items pertaining to self-regulated learning and motivation were chosen from Pintrich and DeGroots' (1990) MSLQ and supplemented with adaptations of items used by McPherson and McCormick (2000). Significant correlations ($p < .001$) emerged between metacognitive-reflection strategies and both formal ($r = .29$) and informal practicing ($r = -.31$), suggesting that participants who reported more metacognitive strategy use may possess greater technical and musical goal specificity (p. 22).

Austin and Berg (2006) utilized a measure based on previous scales by Pintrich and DeGroot (1990) and Weinstein and Palmer (2002) to examine whether band and orchestra students (N=250) had similar practicing profiles, and the extent to which practice environment, practice frequency, and amount of practice affected self-regulated behaviours and motivational levels. The measure was organized into three sections. Section one began as a pool of sixty-five items addressing practice motivation (e.g., "time passes slowly when I practice") and practice regulation (e.g., "I set specific goals each day") and was constructed by reviewing practice research, articles, and other measures of study strategies (e.g., Pintrich et. al., 1991; Weinstein et al., 1987). Items were reviewed by experienced music teachers, reduced to 36 and were subsequently paired with a 5-point response scale. Post Factor analysis reliability coefficient scores were $r = .79$ for the four-item practice motivation factor, and $r = .87$ for the 26-item practice regulation factor. In section two, participants provided answers to two hypothetical practice narratives. Section three contained 12 items addressing background factors such as how many days and hours of practice per week students engaged in. Results indicated that there was a positive correlation ($p < .01$) between practice motivation and both practice frequency ($r = .34$) and amount of practice ($r = .21$). Student narratives included aspects of self-regulation such as planning (e.g., looking over the music before practicing). Other comments indicated participants imagined themselves engaging in monitoring, self-evaluation, and self-instruction. The researchers suggested that teachers actively teach students how to monitor their progress and set goals.

As Boekaerts and Corno (2005) have noted, self-report measures are not without their flaws. Participants are not always accurate when reporting their use of strategies. The validity of these instruments may also be reduced when they are created for one population but administered to a different population. For example, most quantitative studies examining self-regulated learning have used the MSLQ; however, this questionnaire was developed and intended to be used in academic settings; thus, the reliability and validity of these measures for use in music education research may be questioned.

The second period of SRL measurement coincided with the release of the first edition of the *Handbook of Self-Regulation* (Boekaerts et al., 2000). This period was the result of SRL being conceptualized more as a dynamic series of behavioural, cognitive, metacognitive, motivational, and emotional events and to capture the cyclical nature of self-regulation. Moving from a trait-based towards a process-based conceptualization of SRL meant that new methods of measurement were needed, ones that could track along with and accurately capture ongoing real-time processes in a moment-to-moment manner (Winne & Perry, 2000). These "on the fly" measurement methods (Panadero et al., 2016) attempted to follow the activity of students during a task. Such measurement methods include think-aloud protocols (TAP), and case studies.

Compared to self-regulation questionnaires which collect data through participant self-reflection and assessment of SRL processes after the fact, TAP's utilize verbal reports, having individuals think and talk out loud throughout the duration of an activity or task. TAP's have been used to study SRL in multiple academic domains, including reading (Fox, 2009; Schellings and Broekkamp, 2011), science (Azevedo, 2005), math (Muis, 2008), and history (Poitras et al., 2012). A number of SRL studies exploring instrumental music practicing (e.g., Nielson, 2001; Oare, 2007; Leon-Guerrero, 2008) have utilized TAP's in their methodologies. Results of these studies indicate a gap in SRL behaviours due to developmental factors; adult musicians appear to utilize a vastly different repertoire of SRL tools (e.g., goal setting, practice strategies, self-assessment) than do middle school students. For example, Leon-Guerrero (2008) and Oare (2007) both conducted studies on middle school instrumentalists using a TAP in order to understand what self-regulated learning strategies adolescents use during music practice. The researchers found that student goals lacked specificity (neither proximal nor distal goals were set), that repetition was referred to or used more frequently than other strategies, and that going back to the beginning was the most often cited practice strategy. In addition, a lack of goal specificity was found to negatively influence students' choice of practice strategy. Nielsen (2001) explored the practice strategies of two advanced conservatory organists using a TAP. The musicians first analyzed the musical task before them and then set goals concerning what they thought was attainable within a given practice period. Results indicated that goals were arranged hierarchically, and participants subsequently chose appropriate strategies for approaching these goals based on contextual factors. In addition, participants self-instructed themselves through self-guiding verbalizations and monitored and assessed their learning which led to changes in strategy.

Ericsson and Simon (1993) have cautioned against relying on measures that employ a verbalization type that might affect the nature of a participant's cognitive processing, performance, and sequencing. This issue could arise when participants explain their thinking or decision-making processes or actions. According to Ericsson (2006), such issues can be mitigated in one of three ways: (a) by providing participants with clear, specific TAP directions; (b) by having participants practice the TAP before data collection begins; and (c) by prompting verbalizations in a way that decrease the likelihood of reactivity. Further, Ericsson & Simon (1993) suggest that researchers should not be visible to participants during TAP's, that participants should be encouraged to talk aloud as if to themselves, and that participants should be encouraged to "speak as they think and do" (Greene *et al*., 2011, p. 325) to avoid a time lag.

SRL processes are thought to be situated and context-dependent. At the same time, such processes have been described as both iterative and adaptive. Thus, researchers have sought methodological strategies and frameworks that can meaningfully probe these dynamic processes as they emerge within learning events. As a result, researchers have adopted case study designs to provide an in-depth understanding of an event as it is situated within an authentic context (Yin, 2003). These cases are described as a bounded system, often representing a person, place, phenomenon or social unit (Merriam, 1998), have defined boundaries and relationships, often employ a purposive sample (Stake, 2006), and may include a variety of collected evidence including documents, interviews, observations, journals, surveys, and think-aloud protocols (Butler & Cartier, 2018).

A number of music studies have utilized case study methodology in order to capture the in-the-moment nature of SRL processes. A subset of these studies (Bartolome, 2009; McPherson & Renwick, 2001; Dos Santos & Gerling, 2011) have examined the relationship between SRL behaviours and the use of practice strategies using Zimmerman's six-dimension SRL model. For example, McPherson & Renwick (2001) studied the common trends and individual differences of seven beginner band students (seven to nine years of age) according to the six dimensions of self-regulation as outlined by McPherson and Zimmerman (1998). Behavioural coding was conducted on the content of practice, the nature of errors and off-task behaviours, and the interaction of family members. Bartolome (2009) explored the self-regulated practice behaviours of three high-achieving third-grade recorder players using a semi-structured interview protocol. Students also performed two pieces of their choosing to demonstrate their proficiency. Field notes were taken during the interviews and the performances. Interviews were coded for themes relating to McPherson and Zimmerman's (2002) six dimensions. Results indicated that participants were able to articulate context-specific strategies for problem-solving during practice sessions, thus highlighting the method dimension of Zimmerman's SRL framework. Dos Santos & Gerling (2011) examined the preparation of a short piano piece among 15 graduate and undergraduate students. Four of Zimmerman's six dimensions were used: (a) method, (b) time, (c) behaviour, and (d) social/cultural factors. Data were collected from semi-structured interviews and three recorded performances. Preparation for the piece occurred without help from teachers, thus highlighting the individual musical resources employed in the attainment of technical and expressive goals. Results indicated that self-regulation was mainly grounded in the method dimension (task strategies), which accounted for 72% of verbal comments.

Some researchers (e.g., Wolters & Won, 2018) have argued that some motivational and dispositional aspects of SRL may be best captured by self-report data, or by case studies (Butler & Cartier, 2018), whereas more transient, dynamic, task-specific aspects may be best captured by TAPs (Efklides et al., 2018). This thought of blending measurement tools and methodologies according to their implied strengths paved the way for methods in which the assessment tool is used both to measure SRL behaviours and also as an intervention to effect change in the participant's behaviour.

The third phase of SRL measurement has been characterized by studies that utilize both measurement and intervention (Panadero et al., 2016). In this research design, the tool used for measurement is also part of the intervention intended to promote SRL. While early SRL measurements tacitly assumed that reactivity should be minimized, more recent conceptions of SRL measurement have sought to provoke reactivity. Zimmerman (2002) has defined reactivity as a change that occurs in an individual when they are aware of certain aspects of their behavior as a result of metacognitive monitoring. Reactivity effects occur when students reflect on or begin to distinguish the difference between their established goals and the results of their efforts. This self-monitoring, or act of assigning one's deliberate attention to an aspect of one's behavior (Lan, 1996, p 101), is thought by Schmitz et al. (2011) to be a systematic observation and documentation of one's thoughts, feelings, and actions regarding goal attainment. Hence, self-monitoring plays a crucial role in the reactivity effect and, thereby, in the promotion of SRL. Common methodologies for promoting self-monitoring include rubrics, video self-observation, learning diaries, and microanalysis.

An example of this new conceptualization of SRL as 'intervention plus assessment' (Schmitz & Perels, 2011) can be seen in the use of learning diaries. Diaries are used to help students think about their own learning process. Before an activity, an individual plans the to-be-learned task, and afterward, they reflect on how they did on the task. This ongoing reflection regarding the learning task by the student can potentially affect future learning of the task (the intervention aspect). When completed, an analysis of the student diaries is undertaken by researchers allowing them to explore a student's learning actions over time (the measurement aspect). In this way, the diary is not only a measurement tool but is also an educational intervention.

There is a scarcity of studies within the domain of music that utilize learning diaries as an intervention aimed at increasing SRL behaviours. However, results from those studies have demonstrated increased SRL activities concerning planning, motivation, and self-assessment. For example, Kim (2008) explored how college music majors (*N*=4) of different ages used self-regulated learning behaviours when practicing. Participants wrote in a semi-structured practice diary adapted from Hallam (1997) over the course of two weeks while at a summer music camp. The researcher conducted interviews to obtain information on musical backgrounds and attitudes toward practicing. Results showed that as participants became more self-regulated, they used more self-guided verbalizations and a wider range of practice strategies. For instance, one participant stated, "For the most part, I self-instructed myself by deciding what was wrong, then coming up with a strategy to solve it. Sometimes just knowing what's wrong solves the problem itself". Daily self-regulation journals were found to have enhanced concentration, boosted confidence for practicing, helped to better structure music practice, and encouraged participants to more thoughtfully evaluate their practice and consider more effective ways of practicing.

Hatfield and Lemyre (2016) investigated the personal benefits, perceptions, and effects of a two-month sport psychological skills training program that had been adapted for musicians (*N*=2). The program was focused on developing participants' instrumental practice and performance achievement. Techniques taught included goal setting, attentional focus, arousal regulation, imagery, and acceptance training/self-talk. A wide variety of data sources, including semi-structured interviews, a research log, and practice diaries, were collected. Results indicated that the intervention facilitated concentration, self-observation, self-efficacy, and coping with failure. Practice journals were shown to increase self-observations, self-evaluation, and awareness of instrumental music practice. Osborne et al., (2021) incorporated self-directed practice diaries based on Zimmerman and Moylan's (2009) three-phase model of self-regulation with first-year conservatory pianists (*N*=7) over the course of a semester. The researchers were interested in exploring whether self-regulated learning tendencies would increase and whether the type and quality of these tendencies were a determinant of performance ability. Participants began learning a new piece of music and completed three diary entries over the course of the semester. The practice diary contained open-ended, Likert-type, and forced-choice items tethered to self-regulation sub-processes within each of the three phases of self-regulation. Results indicated that metacognitive monitoring was the sub-dimension that improved the most across both groups. However, high-ability students engaged in more metacognitive monitoring than low-ability students at each of the three time points. Thus, high-ability students engaged in more self-talk aimed at task performance assessment while working through a piece than did low-ability students. Higher-ability pianists set fewer goals and strategies on average than low-ability students, possibly because of their more advanced level. The self-instruction sub-process was low for both ability levels, however, lower-level pianists reported more self-instruction at each of the three time points. Diary entries in the self-control dimension of the performance phase were much less pronounced compared to the forethought phase, especially for self-instruction. The researchers suggested that future interventions involving the performance phase should target the self-instruction, task strategy and attentional focusing sub-dimensions and specifically help musicians focus on these aspects.

Cleary & Callan (2018) have defined microanalysis as a "context-specific, structured interview designed to examine the cyclical phase sub-processes of SRL as individuals engage in authentic learning or performance activities" (p. 340). Understanding the nature of a task (i.e., the demands and challenges) as well as clearly delineating learning cycles (i.e., the beginning, middle and ending of a task) are important prerequisites for administering microanalysis protocols (Cleary & Callan 2018, p. 341). Microanalysis questions need to be strategically positioned within the learning cycle. Forethought phase questions are administered before the task begins, performance phase questions during the task, and reflection phase questions after the learning or performance.

Presently, few studies exist within the music domain that have explored SRL through microanalytic processes. McPherson et al., (2019) constructed a microanalysis protocol to investigate two first-year music students with contrasting self-regulated learning profiles. The two students were compared at three time points across a semester as they prepared a piece for a performance jury. Prior to practicing, the researcher met with the participants to ask questions concerning the forethought phase of the SRL model. Participants were asked what their ideal practice session would look like, and then the participants practiced alone for as long as they wanted while being video recorded. The researcher returned to ask questions addressing the performance and self-reflection phases of the SRL model. The practice video recording was replayed to the participant who gave open-ended descriptions of their metacognitive monitoring strategies. Questions concerning self-evaluation, attributions, emotional affect, and how optimistic they were for their next practice session were included in self-reflection phase questions. Results indicated that the first student self-instructed herself across the three time points and engaged in metacognitive monitoring, which was on-task, challenging, and solution-focused, and tended to focus on higher-order contextual strategies aimed at achieving an individualized interpretation. The second student displayed an almost inverse profile engaging in less goal setting, strategy use and problem-solving.

Miksza et al., (2018) explored the self-regulation tendencies of musicians (*N*=3) utilizing a microanalysis intervention intended to increase participants' self-regulation proclivities. The researchers sought to expand upon previous microanalytic studies within the domain of music (e.g., McPherson et al., 2017) by triangulating findings from microanalysis methods with behavioural observation and interview findings. The researchers also sought to examine the ways in which a pedagogical intervention might be mapped onto the cyclical processes of self-regulated learning. Further, they wanted to know whether changes due to the intervention could be detected with microanalysis assessments. The intervention consisted of coaching sessions where the researcher drew attention to the affective, behavioural, and metacognitive aspects of the participants' practice session. The intervention had modest effects that varied from participant to participant. However, identifying individual self-regulatory strengths and deficiencies led to more individualized intervention programs.

In summary, while certain sub-dimensions of self-regulated learning have received considerable attention in the literature (e.g., motivation, practice strategies), other sub-dimensions, such as self-instruction, have been underrepresented by comparison (Varela et al., 2016). The creation of scales to measure such self-regulated learning sub-dimensions is therefore warranted. Moving forward, researchers should investigate how best to construct research designs that incorporate methods of intervention that encourage reactivity and thereby potentially develop SRL skills and behaviors in students. Such measures should also be sensitive enough to capture the moment-by-moment changes that occur during a context-specific learning task.

Conceptions of Self-Efficacy

Bandura (1997, pg. 3) has defined perceived self-efficacy as "belief(s) in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Thus, self-efficacious individuals set goals, conceptualize a plan of action to attain those goals, and believe they can enact their plans successfully. Self-efficacy is different from other attainment beliefs because it requires a conceptual plan to be in place in order to successfully attain a given goal. The general construct of self-efficacy may be further unpacked into self-efficacy for performance and self-efficacy for learning.

Schunk (1996) has defined self-efficacy for performance as a belief in "one's capability to execute a task successfully by implementing a previously learned set of skills and actions" (p. 11). Over the past 20 years, music researchers have explored the relationship between self-efficacy for musical performance and musical achievement. Studies exploring instrumental music examinations (e.g., McCormick and McPherson, 2003; McPherson & McCormick, 2006) and competition rankings (e.g., Clark 2008) indicate that self-efficacy for musical performance is a strong predictor of musical achievement. However, interventions in jazz improvisation (Davison, 2010; Watson, 2010) have shown inconsistent results.

McCormick and McPherson (2003) explored the relationship between self-efficacy and performance achievement with participants (*N*=332) between the ages of nine and 18 years who were taking a Trinity College music examination. Participants rated their sense of self-efficacy using a researcher-constructed measure before taking the performance examination. Results of structural equation modelling found that self-efficacy was the best predictor of the students' performances. A follow-up study (McPherson & McCormick, 2006) employed a larger sample size (*N*=686) and an amended self-efficacy scale. Once again, self-efficacy was found to be the strongest predictor of examination performance. Caution should be taken with these results, however, due to the small number of items in the self-efficacy measure and the lack of reported measure reliability. Clark investigated the relationship between string students' perceived musical self-efficacy and their ranking in a regional competition. Participants (*N*=65) were high school string students auditioning for an all-region orchestra. All participants completed a 25-item questionnaire which included questions regarding background variables and perceived self-efficacy for string playing. The summed self-efficacy scores were significantly correlated with competition rankings; participants who ranked higher in achievement tended to have higher self-efficacy scores.

Davison (2010) used an experimental design to examine whether theory-based improvisation instruction would influence students' (*N*=76) self-efficacy for improvisation and instrumental music achievement. Band members in grades six through eight were assigned to either an auditory modelling instructional condition or an auditory model combined with musical notation instructional condition. The intervention took place over the course of ten 45-minute sessions. Pretest and posttest self-efficacy measures were administered. Internal consistency for the researcher-constructed self-efficacy for instrumental music measure was high. Following the treatment sessions, participant performances were assessed by three experienced music educators. Statistical analyses indicated significant increases in students' self-efficacy for improvising and for instrumental music following improvisation instruction.

Watson (2010) had collegiate music majors (*N*=62) learn jazz improvisation using aural imitation or notation-based methods over three 70-minute sessions. A 10-item researcher-constructed jazz improvisation self-efficacy scale was administered to participants pre- and postest. The internal consistency for the self-efficacy scale was high. Pre- and posttest performance recordings of the jazz standard *Perdido* were assessed by four expert judges. Results of mixed design ANOVAs found a significant pre- to posttest interaction for instructional method in favour of the aural imitation condition. However, while self-efficacy increased significantly pre- to posttest for all participants, no significant effect on self-efficacy for instructional type was found.

Miksza (2015) investigated the effects of self-regulation instruction on performance achievement and self-efficacy for musical performance with advanced wind instrumentalists (*N*=28). A 10-item self-efficacy questionnaire adapted from Hendriks (2009) was administered at pre- and posttest to assess participants' confidence for performance. Internal reliability of the self-efficacy measure was high. Results indicated larger, albeit non-significant, gains in self-efficacy for the experimental condition compared to the comparison condition.

Clark and Williamon (2011) explored the effects on self-efficacy and performance achievement of a music-specific mental skills training program with a sample of conservatory music students (*N*=23). Participants self-selected to participate in either an experimental (*n*=14) or control group (*n*=9). The 8-item Self-Efficacy for Musical

Performing questionnaire (Ritchie & Williamon, 2011) was used to assess participants' perceptions of efficacy prior to a musical performance. The intervention consisted of one 60-minute group session and one 30-minute individual session per week over a nine-week intervention interval. The treatment addressed three main topics: motivation and effective practice, relaxation and arousal control, and performance preparation and enhancement. Participants' performances of two pieces were assessed to provide data for the criterion variable of performance achievement. Results showed a significant pre- to postinstruction interaction effect on self-efficacy for musical achievement in favour of the experimental group. Low interjudge reliability prevented the performance variable from being analyzed.

The results concerning self-efficacy for performance and performance achievement found in the extant literature suggest that more research is needed in this area. Furthermore, because self-efficacy is domain-specific, and studies examining self-efficacy for guitar performance are lacking, there is a need for further research in this domain.

While Bandura's original conception of self-efficacy focused on performance attainment, Schunk and Hanson (1985) broadened this conception to include self-efficacy for learning. Self-efficacy for learning involves assessing what will be required in the learning context and how well one can use one's knowledge and skills to produce new learning (Schunk 1989). Results from the domain of music (Ritchie & Williamon, 2007, 2011) have confirmed that self-efficacy for musical learning is a distinct type of self-efficacy and that it differs from self-efficacy for musical performance. Ritchie and Williamon (2007) constructed and validated a self-efficacy for musical learning scale based on Sherer et al.,'s (1982) General Self-Efficacy Scale. Questions were altered to correspond to a either performance or a learning context. Participants (*N*=53) were asked to recall a performance in which they played a prominent role and to imagine that they were to perform a similar activity with comparable musical and technical demands in the next few weeks. They were then asked to indicate their level of agreement with statements concerning learning or performance of the imagined piece on a 7-point Likert-type scale. Internal reliabilities for the learning (α=0.78) and performance scales (α=0.74) were high. Analyses indicated that participant scores on the learning scale were higher than those on the performing scale, demonstrating the need for criterion tasks to be assessed at an optimal level of specificity within a field (Pajares, 1996). Ritchie and Williamon (2011) subsequently validated the self-efficacy for learning and self-efficacy for performance measures with a sample of conservatory and university music students (*N*=250). Exploratory factor analysis confirmed that each measure contained a single underlying factor. These results highlight the need for different types of self-efficacy scales and the importance of specificity when measuring self-efficacy beliefs.

Other researchers (e.g., Miksza & Tan, 2015; Zimmerman et al., 1992) have, in turn, extended the construct of self-efficacy for learning to investigate self-efficacy for self-regulated learning. Self-efficacy for self-regulated learning refers to self-beliefs about personal competence in using learning processes such as goal setting, strategy use, self-instruction and metacognitive monitoring (Zimmerman & Kitsantis, 2014). Zimmerman et al., (1992) employed a self-efficacy for self-regulated learning scale adapted from the Children's Multidimensional Self-Efficacy Scales (Bandura, 1989a) in their study examining self-motivation for academic achievement of high school students (*N*=102).

The self-efficacy for self-regulated learning scale included 11 items focusing on self-regulated learning strategies such as resisting distractions, participating in class, and structuring environments conducive to study. Results indicated that self-efficacy for self-regulated learning affected efficacy beliefs for academic achievement, which in turn influenced academic goals and final achievement.

Miksza and Tan (2015) created a self-efficacy for self-regulated music learning scale as part of a larger study exploring the influence of five predictor variables on practice efficiency, flow during practice, and self-efficacy for self-regulated learning. The researchers adapted Zimmerman et al.'s (1992) measure of self-efficacy for self-regulation by adjusting words to accommodate for a music practice context. For example, the prompt "How well can you…" was followed by music-related self-regulatory activities, including "concentrate while practicing," "organize the tasks you pursue while practicing," and "arrange for a place to practice without distraction." The 13-item measure used a Likert-type scale and demonstrated excellent internal consistency (a=.90). Results indicated strong correlations between the variable of self-efficacy for self-regulated learning and the variables of practice efficiency (.75) and flow (.74).

The studies discussed in this section have provided an important foundation from which to extend research into self-efficacy for self-regulated learning in music. This previous research has employed self-efficacy for self-regulated learning scales that included dimensions integral to McPherson and Zimmerman's (2002) six-dimension model of self-regulated learning. However, more research into this construct is needed, and self-efficacy for self-regulated learning scales that align with other theoretical models (e.g., Zimmerman's Three-Phase Cyclical Model) would provide further insights.

Coping and Mastery Models

Motivational processes play an important role in the efficacy of learning. These processes may include direct, vicarious, or self-directed incentives and are influenced by learners' self-beliefs or self-efficacy regarding their abilities to successfully achieve learning goals (Bandura, 1997). Mastery experiences, or one's own successful personal achievements, are the strongest source of self-efficacy, followed by vicarious experiences or estimates of one's own abilities based on the observation of others (Bandura, 1997). Where vicarious experiences are involved, research (e.g., Schunk & Hanson, 1985) has indicated that one's self-efficacy is impacted to a greater extent by observing models that are perceived to be more similar to oneself. In particular, Bandura (1997) proposed that learning by observing a coping model, one who begins a task unsure of themselves but through persistent effort improves their performance, would have more positive effects on the self-efficacy of novice learners than observing a mastery model, one who performs a task effortlessly and without error from the outset.

Coping models who exhibit gradual learning through a spectrum of negative to positive attitude statements and lower to higher ability and confidence statements have been shown to be effective compared to mastery models who displayed exemplary performance, positive attitude statements, and high ability statements (Weiss et al., 1998). Schunk has argued that personal relevance increases as a model becomes more like the learner (Schunk et al., 1987). According to Bandura (1997) coping models may raise efficacy perceptions for a number of reasons. Individuals with low self-efficacy may relate more to coping models than to mastery models. Observers may develop resilience watching coping models demonstrate perseverance, as coping models may demonstrate that failure is not the result of low ability but rather of insufficient effort. Coping models also demonstrate strategies for managing difficult situations, encouraging a reduction in stress due to difficulties (Bandura, 1997, pp.99-100).

Coping models were originally used in therapeutic contexts to lessen uncomfortable thoughts and feelings in fearful clients (Thelen et al., 1979). Meichenbaum (1971) conducted an early study investigating the relative efficacy of mastery versus coping models, with or without cognitive modelling, for reducing avoidance behaviour towards snakes. Participants (N=36) with an extreme fear of snakes were randomly assigned to one of four conditions: (a) behavioural mastery model (model confident in their handling of the snake); (b) behavioural mastery model plus verbalizations (model confident in their handling of the snake and demonstrating self-talk indicating fearlessness of approach); (c) behavioural coping model (model initially demonstrates fear and hesitancy then gradually becomes bolder in their approach to the snake); and (d) behavioural coping model plus verbalizations (model initially demonstrates fear and hesitancy, gradually becomes bolder, and verbalizes self-instructions concerning how to lessen fear). Participants interacted with a five-foot corn snake, beginning with easy tasks such as looking at the snake and progressing to the most difficult task, holding the snake for 60 seconds. After each task, the researcher rated the participants' willingness and spontaneity to engage in the task, while the participants rated their level of fear for performing the task. Results indicated that participants in the coping condition performed significantly more approach behaviours from pre- to posttest ($p < .0001$) than participants in the mastery condition, regardless of whether the models verbalized or not. Researcher ratings indicated that coping plus verbalization participants displayed significantly less fear and hesitancy ($p < .05$) in relation to the more threatening tasks.

Coping model studies were next expanded to include topics within sports and general education. Some of these studies (e.g., Kitsantas et al., 2000; Schunk et al., 1987) have found superior effects for coping versus mastery models on both performance achievement and self-efficacy. For example, Kitsantas et al., (2000) explored the influence of coping versus mastery models, with or without social feedback, on the dart-throwing skills of ninth-grade students (N=60) using a posttest-only design. Participants were randomly assigned to one of six groups: (a) no model, no feedback; (b) no model with feedback; (c) mastery model, no feedback; (d) mastery model with feedback; (e) coping model, no feedback; and (f) coping model with feedback. All participants received initial instruction concerning proper dart-throwing technique and how to score. Coping participants then viewed a video of an adult model, who initially demonstrated 50% throwing errors, proceeded to 25% errors, and then to no errors across 15 trials. Mastery model participants viewed the same model perform 15 dart-throwing trials with no technical errors. The control group did not view a model. Following the intervention, participants were rated on their dart-throwing skills. Results showed that participants in the coping model group scored significantly higher than both mastery and no model groups on dart-throwing skills, self-efficacy, self-satisfaction, and intrinsic interest. Schunk et al., (1987) investigated the effects of coping and mastery models on self-efficacy for learning, interest, and achievement in solving math problems containing fractions. Participants (N = 80) rated their level of confidence for correctly solving a set of displayed fractions, and then a fraction skill test was administered. Participants were then assigned to either a coping or mastery model condition. Mastery models completed mathematical operations correctly and verbalized beliefs of high self-efficacy (“I can do that one”), high ability (“I’m good at these”), low task difficulty (“that was easy”), and positive attitude (“I like working these”). Coping models made mathematical errors and then gradually improved to where their behaviours matched those of the mastery model. The coping model made statements related to low achievement (“I’m not sure I can do that") and self-efficacy beliefs ("I'm not very good at these") but progressed to verbalizing coping behaviours ("I need to pay attention to what I am doing,” “I’ll try to do my best”) and eventually to making similar belief statements as the mastery model. Results indicated that observing a coping model significantly enhanced self-efficacy for learning to solve fraction problems and for achievement in solving those problems compared to those who observed a mastery model. Coping model participants also judged themselves as being more similar in competence to their model than did mastery participants.

Some studies in this research domain have found superior effects for coping models on self-efficacy measures but not achievement. For example, Weiss et al., (1989) explored the comparative effects of coping versus mastery models on self-efficacy, swimming skill, and fearfulness of water. Participants ($N = 24$) enrolled in a community swimming school and who identified as being fearful of the water and having low self-confidence were recruited for the study. The participants (average age 6.2 years) were matched by age and experience and then randomly assigned to either control, peer mastery, or peer coping conditions. Over a three-day span, participants experienced the modelling intervention followed by a 20-minute lesson each day. Borrowing from Schunk et. al.’s

(1987) methodology, the peer mastery model verbalized statements of high self-efficacy, low task difficulty, high ability, and positive attitude followed by a correct performance of the six dependent variables of swimming skills. The peer coping model progressed over the course of the intervention from a "can't do" to a "coping" to an "exemplary" phase with appropriate matching demonstrations and verbal statements. The control group watched cartoons. Results indicated that peer-coping model participants displayed significantly greater self-efficacy changes compared to the peer-mastery group for each of the six individual swimming skills and the combined skills, yet scores for the performance of those skills did not differ significantly between the two groups.

In contrast, other studies have found no significant difference between the effects of coping and mastery models on either self-efficacy or performance achievement. For instance, Clark & Ste-Marie (2002) examined the relative effects of model type on self-efficacy for and achievement in diving skill. Participants (*N* = 30) were children (mean age of 7.7 years) with no prior diving experience who were enrolled in a Canadian Red Cross AquaQuest program. Data collection and intervention took place over a three-day span. On day one participants were assigned to a study condition, received a 15-minute diving lesson, and completed pretest measures of self-efficacy for diving and perceived task difficulty. The video modelling intervention and 15-minute diving lessons were administered on days two and three. The coping model demonstrated errors in six dives, performing a seventh correctly. Self-efficacy and task difficulty statements progressed from indicating low confidence and great difficulty to indicating higher confidence and ease of execution across the duration of the video. The mastery model performed the diving skills correctly and verbalized a high efficacy or low task difficulty statement on each dive. A swim instructor gave error feedback to both models for each dive. Results of analyses indicated non-significant differences between groups for changes in self-efficacy, perception of task difficulty, and performance achievement.

To date, only Lewis (2018) has investigated the potential effects of coping and mastery models with music students. Lewis examined undergraduate voice majors' (*N*=9) beliefs in their ability to sing and how they were influenced by four sources of self-efficacy. Participants completed a vocal performance self-efficacy survey (Zelenak, 2011), participated in an initial interview session, and submitted three journal entries describing a positive or negative vocal experience during a voice lesson, when practicing, and when performing. Participants were asked to draw on experiences with vocalists in their own cohort as examples of real-life coping and master peer models. Data were coded according to a priori themes related to each of the four sources of self-efficacy. Qualitative results from the “vicarious experience” theme indicated that participants viewed masterclasses as an opportunity to learn task strategies from coping models because “I can hear what they changed to fix their sound, and I can go and apply what I observed to my voice”. Viewing coping models prompted some participants to think in diagnostic and self-instructional ways. Describing her own mental process as an “ongoing dialogue”, one participant asked herself the following questions while observing a coping model; “What are they doing wrong? How can they fix it? How can I explain to them how they can fix it? How can I best guide them and coach them through this?” These data support Bandura’s premise that the accomplishments of others who are perceived to be similar to oneself can be "diagnostic of one's own capabilities" (Bandura, 1997, p. 87).

The extant research regarding the effects of coping and mastery models shows an increasing departure from the original focus of demonstrating methods to cope with emotional reactions to investigating a broader range of dependant variables that include cognitive and behavioural aspects of learning. However, it is currently unknown whether coping model efforts focused on cognitive and behavioural aspects of self-regulated learning, such as self-instruction, metacognitive monitoring, task strategies, and goal setting, might positively affect self-efficacy for learning and performance achievement among music students.

Summary

The present review of literature has examined existing research in the fields of self-regulation, self-efficacy, and the effects of model type on the development of self-efficacy. Some of the important findings may be summarized as follows: (a) While certain sub-dimensions (e.g., motivation, practice strategies) of self-regulated learning have received considerable attention in the literature, other sub-dimensions such as self-instruction, have been underrepresented; the creation of scales to measure such self-regulated learning sub-dimensions is therefore warranted (b) Researchers should investigate how best to construct research designs that incorporate methods of intervention that encourage reactivity and thereby potentially develop SRL skills and behaviours in participants; (c) Measurement scales for self-efficacy for self-regulated learning that align with theoretical models of self-regulation (e.g., Zimmerman's Three-Phase Cyclical Model) have not yet been created and would provide further insights into this construct; (d) The question of whether the use of coping models that focus on cognitive and behavioural aspects of self-regulated learning might positively affect self-efficacy for learning and performance achievement among music students has yet to be investigated.

CHAPTER III

METHOD

The present study compared the effects of viewing coping and mastery model video performances on the levels of self-efficacy for self-regulated musical learning, self-efficacy for classical guitar performing, and performance achievement of adult beginner classical guitar students.

Participants

Participants (*N*=86) in the study were undergraduate non-music majors enrolled in two beginning guitar courses at a major Canadian university. The University of Western Ontario Research Ethics Board granted permission to recruit participants. A Ph.D. student-colleague in the Faculty of Music who held no position of power over students in the class was assigned the role of a research assistant. The research assistant distributed a recruitment email to all enrolled students during the first week of class. Interested students were directed to an electronic Letter of Information and Consent (LOI-C), administered through Qualtrics, located within their course DropBox folder. Students consented to join the study by clicking a link at the end of the electronic LOI-C. A unique participant number was assigned to each participant in the class and was included in each LOI-C. Students placed their unique participant number within the returned LOI-C so researchers could identify them. Only class members who submitted an LOI-C were included as participants in the research study. The research assistant conducted all subsequent correspondence with participants and collection of participant data.

The researcher-constructed Instrumental Music Background Survey (Appendix A) was used to gather information about participant experience variables that might influence self-efficacy for self-regulated musical learning, self-efficacy for classical guitar performance, and classical guitar performance achievement. Participants were asked to report the following information: (a) age, (b) sex, (c) if they had previously played the guitar or a musical instrument other than the guitar, (d) how long they had played the guitar or a musical instrument other than the guitar, and (e) self-rating of their guitar and other musical instrument playing skills. Participants' ages were assessed in years. Participants were given the following four options to describe their sex: (a) female, (b) male, (c) prefer to self-describe, and (d) prefer not to answer. Participants' experience with guitar and musical instruments other than the guitar was measured as a categorical and continuous variable (e.g., "How long have you played the guitar for?"). Continuous data were converted to years of playing experience for both guitar and instruments other than guitar. Participants chose a number between zero and eleven that best represented their self-rated playing ability for both guitar and instruments other than the guitar. Descriptive scale anchors were: (a) 0-Beginner, (b) 5-Intermediate, and (c) 10-Advanced.

Participants were randomized using a random number generator (random.org). Randomization draws on probability theory to explain the likelihood of chance as a source for the difference between outcomes, is used to eliminate bias during the assignment of treatment groups and to blind the treatment type to the investigator, participants, and evaluators. The number of participants in each class determined the range of numbers randomized. The randomly generated sequence of numbers was mapped onto participants' surnames arranged alphabetically. Restricted randomization controls for randomization and allows for greater balance between group sizes. Equal

Blocking is a subset of restricted randomization which ensures a close balance of participant numbers in each group at any time during a study. Random Assignment Within Blocks to Equal-Sized Groups was used to assign participants to treatment groups using random allocation software (https://mahmoodsaghaei.tripod.com/Softwares/randalloc.html). Two group headings (Mastery and Coping) and a sample size were used based on participant enrollment in each class. A list of random numbers (based on sample size) for random assignment to the groups, in which the groups were randomized within blocks, was then generated (e.g., see Figure 7). The randomly generated number sequence and the corresponding group affiliation were then paired with the randomized participant numbers previously described to assign participants to the two treatment groups.

Figure 7

Example of Random Assignment Within Blocks to Equal-Sized Groups

0001: **coping**	0002: **mastery**
0003: **mastery**	0004: **coping**
0005: **mastery**	0006: **coping**

Measurement Instruments

Self-Efficacy for Self-Regulated Music Learning

The researcher-created Self-Efficacy for Self-Regulated Music Learning Scale (SESRMLS, Appendix B) was based on Zimmerman and Moylan's (2009) three-phase model of self-regulation. Four self-regulated learning sub-processes were chosen for investigation: (a) goal setting, (b) task strategies, (c) self-instruction, and (d) metacognitive monitoring. These four sub-processes were selected because they have been identified within the music practice literature as integral to successful musical practice (e.g., Jørgensen, 2004; Hallam, 2001) and seem most likely to be impacted by a coping model intervention. Key statements describing the four self-regulated learning sub-dimensions were chosen from the literature and then used as conceptual exemplars to generate scale items. For example, the statement, "Self-instruction refers to overt or covert descriptions of how to proceed as one executes a task, such as self-questioning as one reads textual material" (Zimmerman & Moylan, 2009, p. 302) was used to guide the construction of questions within the self-instruction sub-dimension, including the statement, "teach yourself how to master difficult musical sections." Similarly, the statement; "Metacognitive monitoring or self-monitoring refers to informal mental tracking of one's performance processes and outcomes, such as one's learning processes and their effectiveness in producing learning" (Zimmerman & Moylan, 2009, p. 303) was used to guide item construction for the metacognitive monitoring sub-dimension, including the statement, "Listen carefully to your playing to identify errors."

A pool of 30 items in total was created for the four sub-dimensions. Items were narrowed down to 20 after consulting with content experts and tested in a pilot study (see Appendix C). Items were further refined after the pilot study via email exchanges with content specialists. For example, all items in the self-instruction sub-dimension were changed from "talk yourself through" to "teach yourself." For comprehension reasons, the word "monitor" was changed to "observe" for two items within the metacognitive monitoring sub-dimension. Two items were also eliminated because they were deemed to be redundant. The revised SESRMLS used for this study (see Appendix B) contains five items assessing the self-instruction dimension, five assessing the metacognitive monitoring dimension, four assessing the task strategies dimension, and four assessing the goal-setting dimension. Each of the 18 items on the SESRMLS was evaluated via an 11-point Likert-type scale allowing for a potential aggregate score of 198 points. According to Bandura (2006, p. 312), the 11-point scale predicts performance more strongly than those with fewer steps. Following Bandura (2006), each item on the scale contains three descriptive anchors. One anchor is placed at 0 (Not at all confident) and one at 10 (Extremely confident) to indicate the endpoints of the scale. A third anchor was placed in the middle of the item (Moderately confident). Before completing the SESRMLS scale, all participants were instructed to scan the sheet music for the criterion task for roughly one minute to assess any potential challenges that might be involved in learning the piece (Schunk & Hanson, 1985). This brief viewing allowed for a general assessment of the difficulties found within the piece but not enough time for specific solutions and strategies to be formulated.

Bandura (2006) has suggested that self-efficacy measures should be given nondescript labels to encourage frank answers. Therefore, the measure was labelled "Attitudes Towards Specific Musical Performance Activities." Two practice items asking participants to rate their confidence for lifting objects of increasing weight were included at the beginning of the scale. This procedure helped familiarize participants with gauging their self-efficacy beliefs and clarified potential confusion about answering the questions. Participants were then asked to rate their level of confidence for each question. Because self-efficacy is concerned with perceived capabilities and not with an individual's intentions, the word "can" was used instead of "will" during the header (Bandura, 2006, p. 308).

Self-Efficacy for Classical Guitar Performance Rating Scale

The researcher constructed Self-Efficacy for Classical Guitar Performance Rating Scale (SECGPRS) used for the main study (see Appendix D) was constructed to assess participants' level of self-efficacy for guitar performance achievement. Appropriate task-specific items were constructed for the SECGPRS by borrowing question stems from Feely's (2017) Classical Guitar Performance Rating Scale (CGPRS) and adapting them to measure the self-efficacy perceptions of participants' guitar performance skills. For example, item 12 of the CGPRS asks whether participants "performed notes in a clean, clear manner (no buzzes, muffled notes or snapping strings)" on their performance submission video. Item 12 of the SECGPRS asks participants how confident they feel about "perform[ing] notes in a clean, clear manner (no buzzes or snapping of strings)." Utilizing identical items stems on both scales allows for comparing self-efficacy for specific guitar skills and an expert assessment of those skills. The measure includes the prompt, "Please rate your percentage of confidence RIGHT NOW that you can perform…" followed by a list of classical guitar performance-related items. Each item on the 12-item measure is assessed via an 11-point Likert-type scale; thus, the potential aggregate score for the CGPRS is 132 points. The measure was titled "Attitudes Towards Specific Musical Performance Activities."

Two questions were added to the final administration of the CGPRS; one concerning participants viewing habits for the video intervention and the other regarding participants perceived similarity to the video models' guitar-playing ability. Pilot study data for the single question concerning perceived model similarity indicated that the provided anchors were confusing for participants. Anchors were removed and replaced with the following multiple-choice responses to increase the validity of participant responses for this question: (a) We were similar, we both played the guitar well; (b) We were both similar, we both struggled with playing the guitar; (c) we were dissimilar, I played the guitar better than the model; and (d) we were both dissimilar, the model played the guitar better than I. Participants were subsequently asked to rate the intensity of their perceived similarity/dissimilarity to the model on a scale ranging from 0-10. Participants in the main study were also asked to estimate how often they viewed the peer model video recordings each day during the eight-week intervention period.

Classical Guitar Performance Rating Scale

The dependent variable of classical guitar performance achievement was measured using an adaptation of Feely's (2017) Classical Guitar Performance Rating Scale (CGPRS, Appendix E). Feely (2017) developed the CGPRS to be used by both research participants for self-assessment and external independent judges to assess performance achievement. The Likert-type measure was based on Russell's (2010) Guitar Performance Rating Scale but was altered to represent techniques more specifically involved in classical guitar performance. Russell's original measure was developed via a facet-factorial approach and addressed five performance dimensions: (a) interpretation/musical effect, (b) Technique, (c) Rhythm/Tempo, (d) Tone, and (e) Intonation. Russell suggested that future rating scales for guitar performance should include assessments of visual as well as aural aspects. As a result, additional items were created to assess the basic physiological principles of classical guitar technique (Shearer, 1990), including the proper positioning of the body, arms, hands and fingers, and the orientation of the instrument. These items were included within the technique dimension. In addition, two other items were added to address pitch accuracy and performance continuity aspects specifically. Feely's (2017) 22-item CGPRS contained five dimensions: (a) intonation (one item), (b) rhythm/tempo (six items), (c) interpretation/musical effect (four items), (d) technique (nine items), and (e) tone, (two items).

Revisions to the CGPRS were made for the present study to clarify items, better align items within a dimension, or account for limitations resulting from video recording technology and instrument disparities. For example, within the tone dimension, the item "participant snapped the strings often" was changed to "performed notes in a clean, clear manner (no buzzes, muffled notes, or snapping of strings)" to capture a broader range of possible guitar tone imperfections. The second item in the tone dimension, "Performed with a warm, full-bodied tone," was eliminated from the scale because some participants used steel string guitars instead of nylon string guitars. The steel string guitar has a particularly thin, bright timbre which does not allow for the production of a warm, full-bodied tone. Further, the range and quality of recording devices used by participants varied widely, making it difficult to assess the tone variable equitably. The pilot study also clarified that evaluating technical aspects through video recording was challenging. Even though participants were given instructions concerning what camera angles to use and what physical aspects should be visible during recordings, participants did not always follow these instructions, making technique challenging to assess. For this reason, two items were removed from the technique dimension; "Participant was seated correctly (shoulders and elbows symmetrical, spine aligned)" and "Correct positioning of the fretting hand forearm, hands and fingers (forearm and hand aligned; fingers curved and in their mid-way position"). One item from the rhythm/tempo dimension, "Performed tempo changes as indicated," was moved to the interpretation/musical effect dimension because tempo flexibility during phrase endings was considered more of an expressive gesture than a rhythmic element. Finally, the tuning/pitch dimension was renamed to pitch, and the items were reduced to one, "Performed correct notes." The item "Tune the guitar properly" was eliminated because most pilot study participants downloaded tuners on their smartphones, making it difficult to assess which participants used tuners and which tuned their guitars by ear.

The revised CGPRS used for the main study (see Appendix F) contains five dimensions: (a) Pitch (one item), (b) Rhythm/Tempo (three items), (c) Interpretation/Musical Effect (four items), 4) Technique (three items), and 5) Tone, (one item). Each of the 12 items on the CGPRS was assessed via an 11-point Likert-type scale to capture greater variability in participants' classical guitar performance skill and to align the CGPRS with the Self-Efficacy for Classical Guitar Performance Rating Scale, allowing for a potential aggregate score of 132 points. The 11-point scale allowed for participants' confidence level for performance to be compared with an external adjudicator's assessment of the same performance. Each item on the scale contains three descriptive anchors (Bandura, 2006) highlighting differing performance achievement levels for the assessed item (e.g., performed no indicated tempo changes, performed some indicated tempo changes, performed all indicated tempo changes).

Materials

Links to the complete coping model and mastery model group video interventions are presented in Appendix G. Verbal scripts for the complete coping model video interventions can be found in Appendix H. Sheet music for the weekly guitar performance pieces during the video intervention phase is presented in Appendix I, and sheet music for the performance criterion variable guitar piece (*Dance of the Downward Skip*) can be found in Appendix J.

Following a two-week preliminary instruction phase, participants were randomly assigned to one of two video modelling groups for an eight-week interval: (a) a group that received weekly mastery model videos or (b) a group that received weekly coping model videos. A control group was not used because of concerns about a possible learning advantage for study participants. The video intervention took place from week three to week ten of the course. A total of eight model videos were incorporated, one per week. Because previous research (e.g., Schunk & Hanson, 1985) has indicated that model age is an important mediating factor, a 21-year-old female third-year undergraduate classical guitar performance major from a large Canadian university was recruited to perform all of the coping model and mastery model video performances. Video recordings were used rather than live modelling to ensure standardized presentation across participants. All model videos were recorded onto an Acer Aspire Laptop using the Windows 2010 Camera application, a high-definition webcam, Neewer Driver-free USB desktop Computer Microphone and an Almansa, 401, Ceder classical guitar.

Three short video excerpts of the peer model were edited together to create each of the eight coping model videos. Each excerpt demonstrated gradual improvement and increased self-efficacy across a one-week learning period and corresponded with the "can't do," "coping," and "exemplary" phases of coping models. Excerpts were intended to demonstrate an optimal yet believable amount of guitar playing and self-efficacy progress during each week. The model included verbal statements from four categories in each phase. Verbalizations and categories were based on Schunk et al.,'s -(1987) research protocol. During the first phase ("can't do"), the model demonstrated frustration, made errors, and verbalized statements indicating low self-efficacy (e.g., "I don't think I can hold the guitar like this"), low ability (e.g., "I'm not good at it"), high task difficulty (e.g., "It's awkward sitting like this"), and negative affect (e.g., "I just don't like it"). During the "coping" phase, the model made fewer mistakes, projected more confidence and modelled musical strategies. For example, during the first coping video, the model moved the guitar up and down in relation to her torso before playing and adjusted her footrest to the appropriate height. During this phase, the model verbalized statements of positive attitude (e.g., "I'm gonna try correcting my technique this week"), increasing self-efficacy (e.g., "I think I'm getting better at this), higher ability (e.g., "it's getting easier to hold the guitar this way"), and lower task difficulty (e.g., "Playing this way is really not that hard"). During the final "mastery phase" the model improved her performance so that she no longer performed with hesitations or errors, but rather performed musically and in an exemplary manner. The model made statements reflecting positive achievement beliefs, including high self-efficacy (e.g., "I can play this piece through now holding the guitar the right way"), high ability (e.g., "I've actually gotten good at it"), positive affect (e.g., "I like holding the guitar this way"), and low task difficulty (e.g., "It's actually easy").

Upon review of the pilot study coping model videos, it was noted that the model engaged in extemporaneous self-talk, which could be viewed as cognitive modelling (see Schunk, 1986). Non-scripted verbalizations were kept to a minimum during the main study to minimize this potentially confounding variable and avoid the possible effects of overt teaching. Data from the pilot study also showed that coping participants viewed model videos less than mastery model participants. This finding may have resulted from the coping model videos being much longer than the mastery model videos. In order to avoid video viewing fatigue and to better align the length of the two video conditions, the duration of the coping model videos was reduced significantly for the main study. The average duration for all eight coping model videos during the main study was two minutes and forty-three seconds. The average duration for all eight mastery model videos was forty-five seconds.

The researcher created a script for each of the eight coping model videos (see Appendix H) to guide the peer model during the production of the intervention videos. Each script described which musical sections should be performed, where and what types of errors should be committed and roughly how long each phase should be. The researcher video-recorded himself performing and enacting the coping model script. Both the scripts and video recordings were sent to the peer video model. Because models need to be believable to be effective, draft video recordings created by the researcher were intended to model how to speak, perform, and behave during the video performances. When aspects of the script or draft video were unclear, discussions between the researcher and the peer model took place until an understanding was reached. The peer model recorded herself performing the three coping model phases and uploaded the excerpts to a shared DropBox folder. Excerpts were imported into Microsoft Video Editor 2010 by the researcher, arranged according to timeline and any unnecessary video footage was removed. The three excerpts were then edited to create a complete coping model video.

All verbal statements within the completed phase-three coping model video were removed to create the mastery model video. All modelling videos were subsequently uploaded to YouTube and placed on "unlisted" mode, allowing only those with a link to view the video. This procedure permitted the researcher control over who received which videos and ensured that non-study participants did not view these videos. Non-study participants viewed mastery model videos each week; however, a different URL link was used so that the data viewing habits of the mastery condition collected via YouTube were not affected.

Coping model videos focused on a new musical topic each week and aligned with items within each SECGPRS dimension. Each item was explicitly modelled within the eight coping model videos to foster participant self-efficacy for performance and performance achievement. Coping model musical topics were chosen according to the demands of each new performance piece. Musical challenges and verbal statements within each coping model video focused primarily on one musical topic. For instance, the setup of the body and instrument when in playing position was modelled during the week one coping model video and right- and left-hand fingering was modelled during the week two coping model video. The list of musical topics modelled and the week in which they were presented are as follows: (a) Week 1 - set up and positioning of the body and instrument, (b) Week 2 - right and left-hand fingering, (c) Week 3 - dynamics, (d) Week

4 - tone, (e) Week 5 - balance, (f) Week 6 - rhythm, (g) Week 7 - slurs, (h) Week 8 - interpretation.

It is important to note that musical topics mastered by the model in previous weeks, such as the setup of the body and instrument when in playing position (week one), do not appear difficult for the model during subsequent weeks. The model appears frustrated each week with a new musical problem not previously focused on or mastered. Once a topic was mastered, the model did not appear deficient in that topic during subsequent weeks.

The researcher created or compiled the guitar instructional materials utilized for the course. All teaching materials were prerecorded. Course materials were organized under the following five topic headings: (a) Technique; (b) Notation, Expression, and Rhythm; (c) Chords; (d) Playing by Ear; and (e) Performance Piece. Each week, various video tutorials, teaching documents and exercises designed to instruct and impart strategies for learning new materials were included within the five headings. The Technique heading deals with all aspects of positioning and movement of the guitar, body, arms, hands and fingers when playing the guitar and is in accordance with current best practices in classical guitar pedagogy (Shearer, 1990; McFadden, 2010). The Notation, Expression, and Rhythm heading introduces note reading on all six strings in first position and rhythms as small as the 16th note subdivision. This heading also contains instructions for performing common expressive gestures, including dynamic contrasts, arch-type phrasing, and tapered phrase endings. During the early part of the course, the Chords heading presented major and minor chords in open position (fretted and non-fretted pitches) and chord progressions aimed at developing pivot and guide fingers, all paired with common strum patterns. During the latter part of the course, power chords and barre chords were introduced within a popular music context. The Playing by Ear heading focused on developing fretboard geography skills by emulating an aural model performing simple folk melodies and popular rock 'riffs.' The Performance Piece heading included classical guitar performance repertoire drawn from several junior method and repertoire books, including Arron Shearer's (2003) *Learning the Classic Guitar Part Two.* And McFadden and Zohn's (2010) *Graduated Repertoire for the Classical Guitarist, Book One*. Peer model video performances of weekly submission pieces were included each week in the teaching materials as part of the regular instruction method for the class.

Procedure

Data collection for the study took place during the academic year of 2021-2022. The course was taught by the researcher and was delivered asynchronously across a 12-week interval to ensure standardization of teaching materials across all study participants. The instructor/researcher was blind to the condition of all students in both classes to control for possible teaching effects.

New teaching materials were released at the same time each week via the course website. Over the course of each week, participants learned one new introductory-level classical guitar piece from scratch through to a performance level**.** As part of the regular method of assessment in the class, all students responded to weekly forum questions prompting them to discuss guitar playing challenges and to offer strategies for overcoming challenges that peers had identified. All students completed weekly online quizzes testing their knowledge of the assigned repertoire and aspects of guitar technique. At the conclusion of each week, all students video-recorded themselves performing two submission pieces: (a) an instructor-chosen classical guitar piece and (b) supplemental performance exercises learned during the previous week (e.g., chords, scales, short pieces learned through modelling or tablature). The instructor-assigned piece and supplementary exercises formed the basis of students' practicing for the week. Students uploaded their videos to YouTube and submitted their URLs to the instructor for assessment.

During week one of the course, students learned the correct positioning of the body and the guitar when in playing position and to read and play three open strings and one fretted note. At the conclusion of week one, all students submitted a video recording of themselves performing an instructor-assigned performance video. This procedure ensured that all students understood the recording and video submission protocol and that there were no technical problems. No grades or feedback were given to students for the week one video submission. All preintervention measures were collected during week two of the course and before the implementation of the video modelling intervention. Peer video models were excluded from the instructional materials during the two-week pre-study phase to minimize confounding variables. The research assistant sent URL Links to the Self-Efficacy for Self-Regulation Musical Learning Scale, Self-Efficacy for Classical Guitar Performance Scale and the background information survey to study participants via email at the beginning of week two. All measures were administered through Qualtrics.

Participants learned and submitted the dependent variable performance piece *Dance of the Downward Skip* (see Appendix J) during week two of the course. This particular piece was chosen for the main study based on the criteria that the piece should incorporate all aspects contained in the SECGPRS and the difficulty level of the piece should be appropriate for novice guitarists. The 16-measure piece utilized the thumb, index and middle fingers of the plucking hand, six fretted and open string notes in first position, quarter and half note rhythms, a two-voice texture, flexible tempo, arch-type dynamic phrasing, and included a metronome marking.

Peer model videos were introduced during week three. The research assistant placed Links to video models in students' course DropBox accounts according to the students' assigned study condition, either mastery, coping, or non-participant. Non-participants viewed the mastery model; however, a different URL link from that of the mastery condition participants was used to separate the data concerning the viewing habits of the two groups. All students in the course were requested to use the best possible recording devices at their disposal for their weekly video submissions. Participants were asked to copy and submit the URL link for their weekly video to a Qualtrics submission document on the course website. Students were instructed to video record themselves straight on (face-to-face), to have their entire guitar, hands, arms, and fingers visible, and that each video submission should be one continuous recording without editing.

All study participants completed a second administration of the SESRML and the SECGPRS measures during week ten of the course after an eight-week intervention interval. Whereas the performance piece was submitted during the pre-study phase as the "main piece," it was submitted as a supplemental "review piece" during the post-study phase to assess development across the course span. This procedure was done to conceal the fact that the piece was part of the study design. Upon completion of the course and the submission of final grades, participants' pre- and postintervention video recordings were compiled, randomized, and placed in a separate DropBox folder shared with an external adjudicator. Data regarding the dependent variable of performance achievement were obtained by having a senior guitar specialist from the College of Examiners at the Royal Conservatory of Music assess each of the pre- and postintervention videos using the CGPRS. Before beginning the evaluations, the judge underwent a brief training session regarding the use of the measurement instrument. The judge and the researcher, also a senior guitar specialist from the College of Examiners at the Royal Conservatory of Music, independently assessed several performance videos using the CGPRS. Training videos were selected from the pilot study's weekly video submissions. Achievement scores from the expert judge and the researcher were compared, and any points of discrepancy were discussed and resolved.

Pilot Study

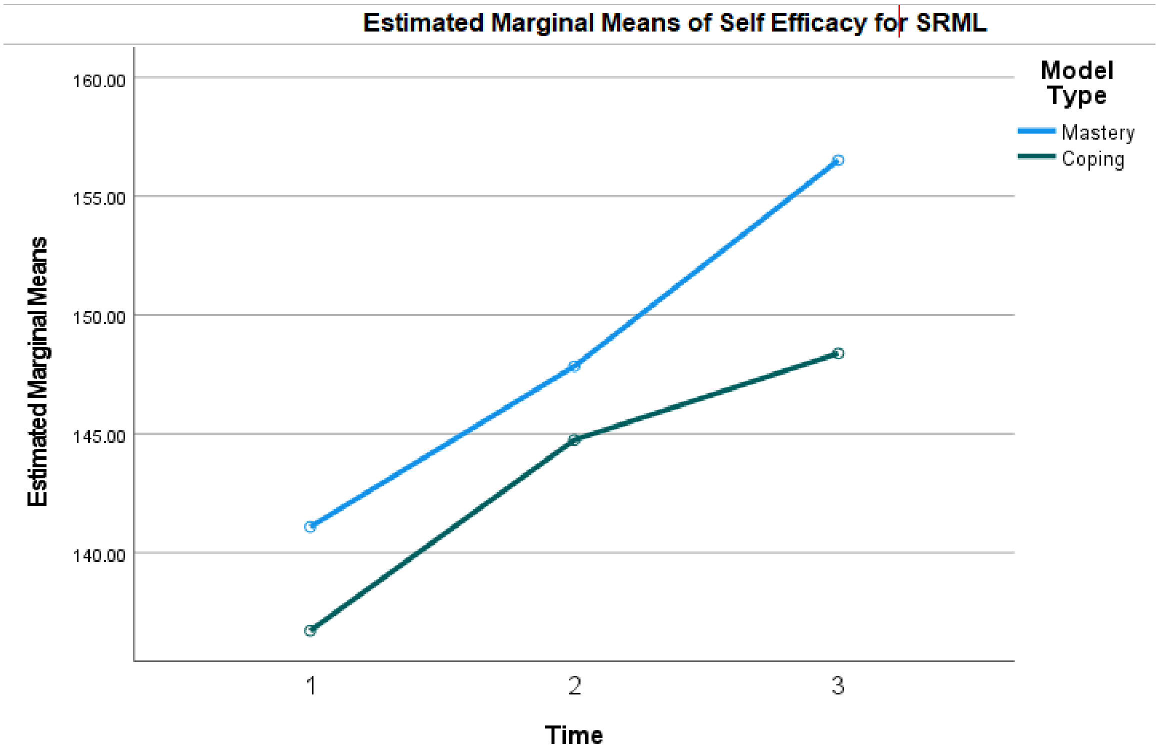
Prior to undertaking the main study, a pilot study was conducted to refine measures and procedures for the main study. The pilot study sought to investigate whether novice guitarists who viewed coping model video performances would exhibit more self-efficacy for self-regulated musical learning, self-efficacy for classical guitar performance and greater levels of performance achievement than those who viewed mastery model video performances over a four-week intervention period. Participants (N=59) in the pilot study were undergraduate non-music majors from a large Canadian university recruited from two online beginner guitar courses during the 2020-2021 academic year.

All participants completed a researcher-constructed musical background survey, viewed mastery model videos during the first two weeks of class, and submitted an initial performance video. The pilot study intervention took place over four weeks, beginning at week three of the course. Participants submitted performance videos and completed measures of self-efficacy for self-regulated music learning and self-efficacy for classical guitar performance during weeks two and four of the intervention phase.

Cronbach's alpha internal reliability coefficients for the 20-item Self-Efficacy for Self-Regulated Music Learning Measure (SESRML, Appendix K) were $\alpha = .944$ at time one, $\alpha = .925$ at time two, and $\alpha = .949$ at time three, indicating a high level of reliability. The measure had a maximum potential composite score of 200. The composite mean scores for the mastery model group were $M = 141.74$ ($SD = 26.53$), $M = 147.96$ ($SD = 20.64$), and $M = 156.52$ ($SD = 20.03$) respectively, indicating an increase in reported self-efficacy for self-regulated musical learning across the study interval. The composite mean scores for the coping model group were $M = 134.56$ ($SD = 26.53$), $M = 144.74$ ($SD = 16.60$), and $M = 148.39$ ($SD = 21.04$), indicating an increase in reported self-efficacy for self-regulation strategies. To investigate the effect of experimental treatment on self-efficacy for self-regulated music learning, a mixed design analysis of variance (ANOVA) was calculated to determine whether the mean scores from the first and third assessments differed according to the between-subjects factor of experimental group and the within-subjects factor of time. An independent samples *t*-test revealed no significant difference ($t = 1.04$, $p > .05$) in time one self-efficacy for self-regulated music learning scores by instructional group. Levene's tests confirmed homoscedasticity for time one ($F = .015$; p $> .05$) and time three data ($F = .100$; $p > .05$). Results of the ANOVA showed no significant interaction effect ($F = .377$; $p > .05$). An examination of the plot of estimated marginal means (Figure 8) indicated a clear ascending trend for both treatment groups, but a potential levelling off of improvement for the coping model group between the second and third time points.

Figure 8

Plot of Estimated Marginal Means for Self-Efficacy for Self-Regulated Music Learning Measure by Experimental Treatment Group-Pilot Study (N = 59)

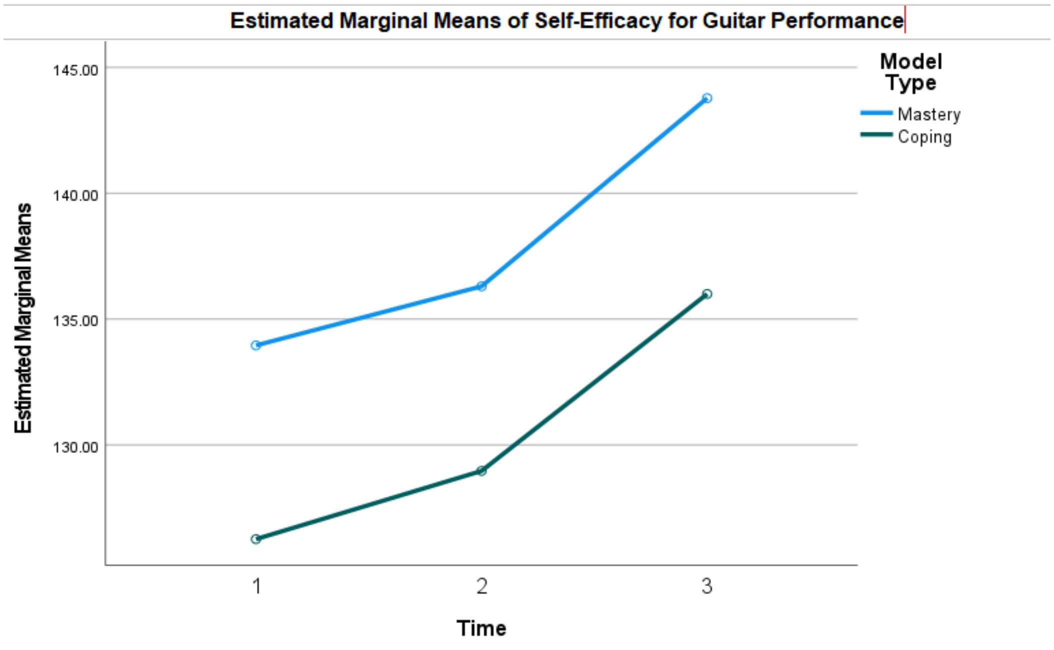


Cronbach's alpha internal reliability coefficients for the 18-item Self-Efficacy for Classical Guitar Performance Measure (SECGPM, Appendix L) were α = .928 for time one scores, α = .943 for time two scores, and α = .934 for time three scores. The 18-item measure resulted in a maximum potential composite score of 180. The composite mean scores for the mastery group were M = 129.77 (SD = 22.06) at time one, M = 134.62 (SD = 21.30) at time two, and M = 143.29 (SD = 16.83) at time three, indicating an increase in perceived self-efficacy for guitar performance across the three time periods. Coping model scores followed a similar pattern as the mastery model scores yet were lower at all three time points; M =125.25 (SD = 19.49), M = 128.97 (SD = 20.68), and M = 136.00

(*SD* = 17.71), respectively. To investigate the effect of experimental treatment on self-efficacy for classical guitar performance, a mixed design ANOVA was calculated to determine whether time one and time three mean scores differed according to the between-subjects factor of experimental group and the within-subjects factor of time. An independent samples *t*-test revealed no significant difference ($t = .411$, $p > .05$) in time one self-efficacy for classical guitar performance scores by instructional group. Levene's tests confirmed homoscedasticity for time one ($F = .057$; $p > .05$) and time three data ($F = .555$; $p > .05$). Mauchly's Test of Sphericity was significant ($p = .014$) and thus reported data is based on Greenhouse-Geisser corrections. Results of the ANOVA showed no significant interaction effect ($F = .008$; $p > .05$). An examination of the plot of estimated marginal means (Figure 9) indicated a clear ascending trend in scores for both treatment groups over the three time periods with both groups seeming to make steeper gains between the second and third assessments.

Figure 9

Plot of Estimated Marginal Means for Self-Efficacy for Guitar Performance Achievement by Experimental Treatment Group-Pilot Study (N = 59)



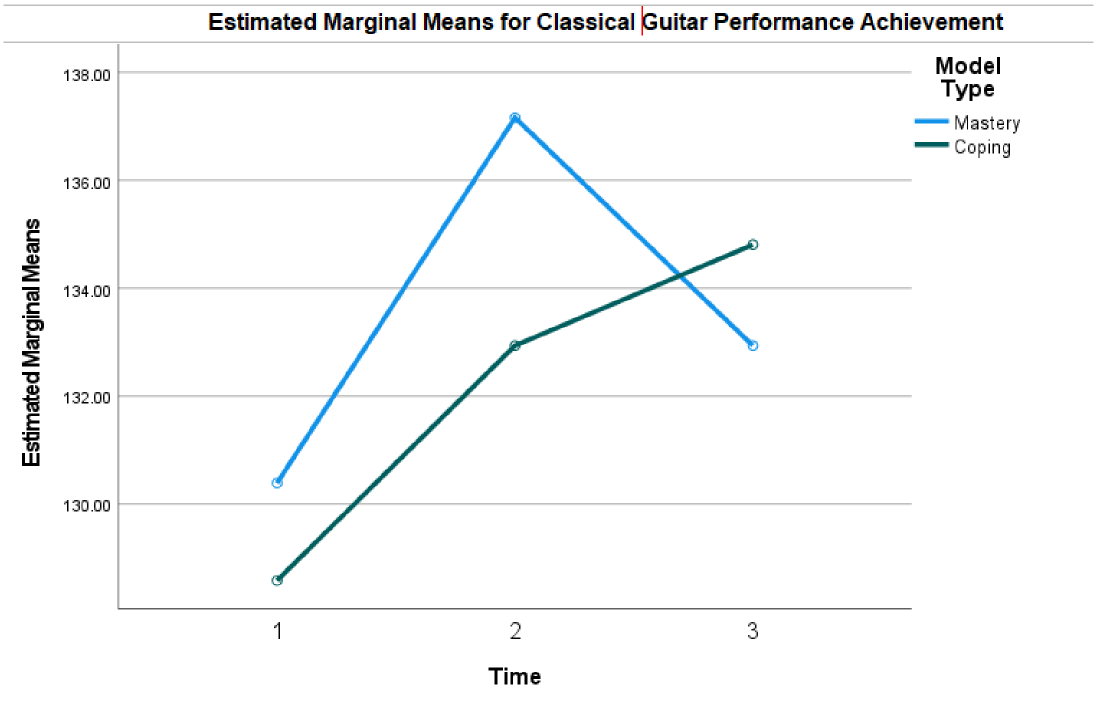
The performance achievement results were based on the scores from participants ($N = 62$) evenly divided between coping and mastery conditions. The Cronbach's alpha internal reliability coefficients for the 18-item Classical Guitar Performance Rating Scale (CGPRS, Appendix M) were α = .727 at time one, α = .816 at time two, and α = .810 at time three. These scores indicate a moderate to high internal consistency among scale items. Scores on items representing each of the five performance dimensions were summed to provide dimension scores at each of the three time points. Internal reliability coefficients were calculated for each dimension, with results indicating low to high internal reliability. All item scores were summed to provide single achievement scores for each of the three time points. In order to assess interjudge reliability, the researcher, also a guitar specialist from the College of Examiners at the Royal Conservatory of

Music, assessed 30% of the 186 performances. Interjudge reliability for the individual items ranged from $r = .45$ (*ns*) to $r = .86$ ($p < .01$), while coefficients for dimension totals ranged from $r = .67$ (*ns*) to $r = .87$ ($p < .01$). The reliability coefficient for composite scores was $r = .86$ ($p < .01$) indicating high reliability for composite achievement scores.

Kolmogorov-Smirnov tests confirmed normality of distribution ($p > .05$) for time one; however, the normality of distribution for the composite scores was disconfirmed at time two and three. The 18-item measure had a maximum potential composite score of 180. The composite mean scores for the mastery group were $M = 129.63$ ($SD = 14.20$) at time one, $M = 135.66$ ($SD = 17.16$) at time two, and $M = 132.94$ ($SD = 18.35$) at time three. The composite scores for the coping group were $M = 128.58$ ($SD = 15.75$) at time one, $M = 132.94$ ($SD = 20.26$) at time two, and $M = 134.81$ ($SD = 13.10$) at time three. In order to investigate the effect of experimental treatment on classical guitar performance achievement, a mixed-design ANOVA was calculated to determine whether the mean scores differed according to the between-subjects factor of experimental group and the within-subjects factor of time. An independent samples *t*-test revealed no significant difference ($t = .783$, $p > .05$) at time one for classical guitar performance scores by instructional group. Levene's tests confirmed homoscedasticity for time one ($F = .649$; $p > .05$) and time three data ($F = .463$; $p > .05$). Results of the ANOVA showed no significant interaction effect ($F = .141$; $p > .05$). However, an examination of the plot of estimated marginal means (Figure 10) indicated a divergent trend between times two and three. The coping model continued to increase in performance achievement throughout the three time periods, yet the mastery model began decreasing scores over the last time period.

Figure 10

Plot of Estimated Marginal Means for Classical Guitar Performance Achievement by Experimental Treatment Group-Pilot Study



In light of the pilot study findings, several procedures were altered for the main study. A random assignment methodology was utilized to assign participants to groups to increase the sample's external validity. All modelled video performances were removed from the two-week pre-study phase in order to minimize potential bias between the groups. The treatment duration was doubled to eight weeks to give participants more time to engage with the intervention and possibly increase its effectiveness. Finally, a pre- and postintervention design with one performance piece was adopted to discourage possible confounds resulting from uneven sequencing of multiple test pieces.

CHAPTER IV

RESULTS

This chapter presents the results of data analyses. Internal reliability scores were calculated for each measure, and interjudge reliability was determined for judges' scores on the classical guitar performance rating scale. Descriptive statistics were determined for all variables, and correlations among variables were calculated. Finally, analysis of variance was used to compare pre- and postintervention group means on measures of self-efficacy for self-regulated learning, the self-regulation sub-dimension of self-instruction, self-efficacy for classical guitar performance, and classical guitar performance achievement.

Participant Experience Variables

The researcher-constructed Instrumental Music Background Survey (Appendix A) was used to gather information about participant demographics and experience variables that might influence self-efficacy for self-regulated musical learning, self-efficacy for classical guitar performance, and classical guitar performance achievement. The mean age of the sample was 21.23 years, with a small standard deviation (see Table 1). The sample included 60 participants who identified as female (69.8%) and 26 who identified as male (30.2%). Fifty-seven participants (66.3%) reported never having played the guitar before the start of the class, while 29 participants (33.7%) reported having some prior guitar performance experience. The mean number of years of previous guitar experience reported by all participants was 0.61 (*SD* = 1.65). The mean self-rating score for initial guitar performance skill for all participants was .92 (*SD* = 1.67) out of a possible score of 10, indicating very low initial confidence among participants regarding their level of guitar performing skill. Seventy-four participants (86%) reported having played musical instruments other than the guitar, while 12 participants (14%) reported never having played a musical instrument other than the guitar. Seven participants (8.1%) reported having never played the guitar or any other musical instrument. Of note, 10 of the 41 mastery group participants (24.4%) reported they had played the guitar prior to the beginning of the study. In comparison, 18 of the 40 coping group participants (45%) reported they had played the guitar prior to the outset of the study.

Table 1

Descriptive Statistics for Experience Variables (N = 86)

	M	*SD*	*n*	%
Have you ever played the guitar?				
Yes			29	33.7
No			57	66.3
Average length of pre-study guitar playing in years	0.61	1.65		
Average self-rating of pre-study guitar playing ability in years [a]	0.92	1.67		
Have you ever played a musical instrument other than the guitar?				
Yes			74	86.
No			12	14.
Average length of pre-study playing for musical instruments other than the guitar in years	4.88	4.34		
Average self-rating of pre-study musical instrument playing ability other than the guitar in years [a]	5.08	2.57		
Sex of Participant				
Male			26	30.2
Female			60	69.8
Age	21.23	1.06		

a = Scale anchors are: ‘0-Beginner’ ‘5-Intermediate’, ‘10-Advanced’

Self-Efficacy for Self-Regulated Music Learning

Cronbach's alpha internal reliability coefficients calculated for the researcher-constructed 18-item Self-Efficacy for Self-Regulated Music Learning Measure (SESRML) were α = .917 for the preintervention scores and α = .953 for postintervention scores, indicating a very high degree of internal consistency among scale items. Scores on items representing each of the four self-regulated music learning subdimensions of self-instruction (*n* = 5 items), metacognitive monitoring (*n* = 5 items), task strategies (*n* = 4), and goal setting (*n* = 4 items) were summed to provide dimension scores (see Table 2). Internal reliability coefficients were calculated for each of these dimensions, with results indicating high to very high internal reliability.

Table 2

Cronbach's Internal Reliability for Self-Regulated Music Learning Sub-Dimensions, Pre- and Post Study

	Pre-instruction	Post-instruction
Self-Instruction	*.859*	*.899*
Metacognitive Monitoring	.776	.871
Task Strategy	.808	.883
Goal Setting	.829	.900

Table 3 presents the descriptive statistics for composite and item scores on the pre- and postintervention administrations of the SESRML, reported by experimental group. The measure had a maximum potential composite score of 180. The pre- and postintervention composite mean scores for the mastery model group were 124.27 (*SD* = 20.49) and

137.78 (*SD* = 20.27) respectively, indicating an increase in reported self-efficacy for self-regulated musical learning across the study interval. Data indicated low skewness values at both preintervention (-.29) and postintervention time periods (-.47), and kurtosis values were also within the normal range (.15 pre-intervention; .54 post-intervention). The pre- and postintervention composite mean scores for the coping model group were 122.27 (*SD*=22.15) and 143.97 (*SD*=19.63) respectively, indicating an increase in reported self-efficacy for self-regulated music strategies across the study interval. Data indicated low skewness values at both pre-intervention (.69) and post-intervention time periods (.-52). Kurtosis values were also within the normal range at preintervention (.75) and postintervention (.18) time points. Of interest, postintervention composite scores for all four sub-dimensions of the SESRMLS were higher for the coping group when compared to the mastery group. The coping group scored higher than the mastery group on 16 of the 18 questions postintervention.

Table 3

Descriptive Statistics for Pre- and Post-study Measures of Self-Efficacy for Self-Regulated Music Learning by Experimental Condition,

	Mastery				Coping			
	Preinstruction (*n* = 41)		Postinstruction (*n* = 41)		Preinstruction (*n* = 40)		Postinstruction (*n* = 40)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Self-Instruction	32.22	8.43	37.37	6.04	31.88	9.04	40.70	6.86
Teach yourself how to play correct notes	7.63	2.03	8.66	1.33	7.43	2.31	8.95	1.30
Teach yourself how to play rhythms correctly	6.44	2.41	7.63	1.80	6.88	2.45	8.37	1.58

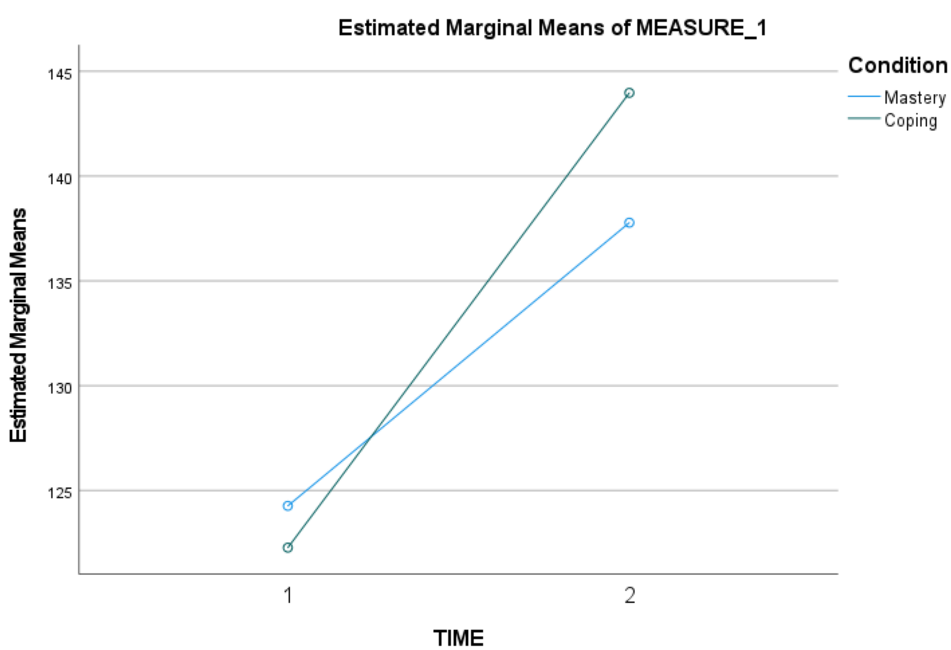
Teach yourself how to play expressively	5.71	2.37	6.71	1.85	4.97	2.36	7.68	1.77
Teach yourself how to correctly move your fingers and to position your guitar, body, and hands	6.39	1.66	7.32	1.68	6.73	1.97	8.18	1.45
Teach yourself how to master difficult musical sections	6.05	1.96	7.05	1.88	5.87	2.07	7.53	1.75
Metacognitive Monitoring	34.93	6.35	38.61	5.89	35.10	6.00	40.40	6.02
Listen carefully to your playing to identify errors	7.39	1.88	8.00	1.67	7.70	1.84	8.33	1.75
Observe your practicing for signs of progress	7.41	1.45	7.83	1.22	7.35	1.41	8.20	1.18
Determine whether your practice strategies are effective or not	6.83	1.84	7.83	1.52	6.82	1.65	7.75	1.30
Track your progress of difficult musical sections	6.78	1.68	7.49	1.47	6.55	1.88	7.90	1.19
Observe and correct the positioning of your instrument, body and finger movement while playing	6.51	1.63	7.46	1.50	6.67	1.66	8.23	1.72
Task Strategies	27.41	5.70	29.95	5.59	26.15	5.40	30.70	4.38
Identify practice strategies that work well for you	7.15	1.65	7.83	1.24	6.95	1.38	7.78	1.25
Adjust your practice strategies when needed	7.12	1.69	7.46	1.58	6.83	1.68	7.57	1.32
Solve most musical problems you encounter	6.68	1.89	7.44	1.69	6.48	1.78	7.68	1.35

Use a systematic process for overcoming musical difficulties	6.46	1.76	7.22	1.78	5.90	2.06	7.68	1.35
Goal Setting	29.71	4.95	31.85	4.27	29.15	5.46	32.17	4.94
Set short-term goals	7.98	1.35	8.22	1.15	7.40	1.68	8.27	1.26
Set long-term goals	7.20	1.75	7.83	1.47	7.05	1.87	7.98	1.27
Prioritize your goals	7.20	1.49	7.78	1.33	7.10	1.53	7.85	1.44
Adjust your goals when needed	7.34	1.54	8.02	1.17	7.60	1.50	8.07	1.39
Composite	124.27	20.49	137.78	20.27	122.27	22.15	143.97	19.63

To investigate the effect of model type (mastery vs. coping) on self-efficacy for self-regulated music learning, a mixed design analysis of variance (ANOVA) was calculated to determine whether the pre- and postintervention mean scores differed according to the between-subjects factor of experimental group and the within-subjects factor of time. Levene's tests confirmed homoscedasticity for pre- ($F = .277$; $p = .600$) and postintervention ($F = .080$; $p = .778$) data. Mauchly's Test of Sphericity also returned a non-significant result ($F = .332$, $p = .802$), indicating no violation of the sphericity assumption. An independent samples *t*-test revealed no significant difference ($t = .421$, $p = .338$) in preintervention self-efficacy for self-regulated music learning scores by instructional group. Results of the ANOVA indicated no significant interaction effect between the two independent variables of condition and time, $F(1,79) = 3.331$; $p = .072$, although this result did approach significance. A significant main effect for the within-subjects factor of time was found, $F(1,79) = 61.61$, $p < .001$, partial eta^2 = .44, suggesting that regardless of experimental group, participants' self-efficacy for self-regulated music learning increased following exposure to the video modeling intervention. Results also indicated no significant main effect for the between-subjects factor of condition, $F(1,79) = .275$, $p = .601$ alone. An examination of the plot of estimated marginal means (see Figure 11) indicated a divergent trend between the two treatment groups, illuminating the potential interaction effect of the two variables. Coping group mean scores were lower than mastery group mean scores preintervention but were higher than mastery group mean scores postintervention. The observed power for this analysis was .44, well below the generally accepted standard of .80. Thus, the small sample size obtained for this study may have obscured a potentially significant effect.

Figure 11

Plot of Estimated Marginal Means for Self-Efficacy for Self-Regulated Music Learning Measure by Experimental Treatment Group



Bivariate correlations were calculated among participants' background variables and composite self-efficacy for self-regulated learning scores. Results (see Table 4) showed that for coping group participants, three variables related to guitar performance were significantly associated with postintervention scores: (a) Have you ever played the guitar (*p* = .51, $p < .01$), (b) How long have you played the guitar (*p* = .44, $p < .01$), and how would you rate your guitar playing skills (*p* = .48, $p < .01$). These items showed no significant correlations with the dependent variable for mastery group participants on either pre- or postintervention assessments. The variable of length of study for instruments other than the guitar was significantly correlated with self-efficacy for self-regulation scores in both groups at preintervention (coping, *p* = .45, $p < .01$; mastery, *p* = .37, $p < .05$) but was not significant at postintervention. The variable of self-rating ability to play instruments other than the guitar was significantly correlated with scores for self-efficacy for self-regulation in both conditions at preintervention (coping, *p* = .58, $p < .01$; mastery, *p* = .45, $p < .01$) but was significantly correlated for the coping condition (*p* = .35, $p < .05$) only at postintervention.

Table 4

Correlations Among Background Variables and Composite Self-Efficacy for Self-Regulated Learning Scores (N = 81)

	Mastery Group (n = 41)		Coping Group (n = 40)	
Variable	*Pre*	*Post*	*Pre*	*Post*
Have you ever played the guitar?	.24	.26	.29	.51**
How long have you played the guitar for?	.24	.24	.27	.44**
How would you rate your guitar playing skills?	.28	.30	.31	.48**
Have you ever played a musical instrument other than the guitar?	.10	-.19	.23	.01
How long have you played a musical instrument other than the guitar for?	.37*	.16	.45**	.25
How would you rate your playing skills for instruments other than the guitar?	.45**	.09	.58**	.35*
What option describes you? Male Female	-.24	-.00	-.00	.18

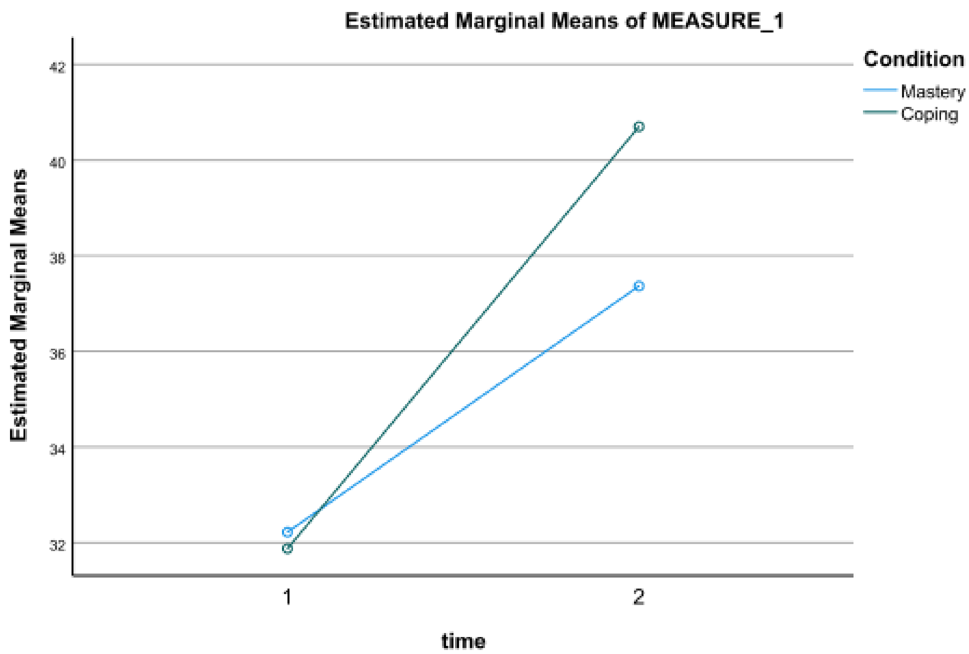
Note: Spearman correlations computed for composite efficacy scores with the variables of guitar playing duration, self-rating of guitar playing ability, playing duration of instruments other than the guitar, and self-rated playing ability for instruments other than the guitar. Point biserial correlations were calculated for efficacy scores and the dichotomous variables of sex and whether participants had played the guitar and other musical instruments prior to the study. **$p < .01$. *$p < .05$.

Sub-Dimensions of Self-Efficacy for Self-Regulated Learning

An examination of scores on the four sub-dimensions of the SESRMLS uncovered a notable trend. The sub-dimension with the largest difference in postintervention scores between the two experimental conditions was self-instruction. Coping group postintervention scores were higher, and standard deviation scores were lower for all five items in the self-instruction sub-dimension compared to the mastery group scores. Thus, the self-report data indicated that coping group participants became more confident in their ability to self-instruct themselves over the course of the intervention period. To assess the impact of experimental treatment on the self-efficacy for self-regulated music learning self-instruction sub-dimension, a mixed-design ANOVA was used to compare pre- and post-study mean scores based on experimental group and time. An independent samples *t*-test revealed no significant difference (t = .178, p = .430) in preintervention scores by instructional group. Levene's tests confirmed homoscedasticity for preintervention (F = .526; p = .470) and postintervention data (F = .000; p = .987). Results of the ANOVA indicated a significant interaction effect, $F(1,79) = 5.16$; p = .026, partial eta^2 = .61, (see Table 12) suggesting that experimental group membership played a role in the development of confidence for self-instruction over the course of the study. No statistically significant group differences were found for the other three self-regulation sub-dimensions of goal setting, task strategy, and metacognitive monitoring.

Figure 12

Plot of Estimated Marginal Means for Self-Efficacy for Self-Regulated Music Learning Self-Instruction Sub-Dimension by Experimental Treatment Group



One potential explanation for why scores on the sub-dimension of self-efficacy for self-instruction indicated statistically significant group differences while the sub-dimensions of goal setting, task strategy, and metacognitive monitoring did not may lie in the content of the coping condition videos. An a posteriori behavioral analysis of the eight coping model videos was conducted in order to investigate the percentage of time the model spent demonstrating each of the four self-regulated learning sub-dimensions. Data were coded and analyzed using the Video Editor feature within YouTube Studio Dashboard. The same key statements describing each of the four self-regulated learning sub-dimensions chosen from the literature and used as conceptual exemplars to generate scale items on the SESRML were used to guide coding of the video data. For instance, the statement, "task strategies refer to analyzing tasks and identifying specific advantageous methods for learning or performing various components of a task" (Zimmerman, Kitsantas, 2005), was used to code data to the task strategies theme. Similarly, the statement "Goal setting refers to deciding upon specific outcomes of learning or performance" (Zimmerman, 2000) was used to code data to the goal-setting theme. Because phase three of the coping model videos was identical to weekly mastery model videos except for the inclusion of four coping statements, no behavioral analysis was conducted on phase three videos.

The total combined duration of phase one and phase two video excerpts across all eight videos was 11:57. The self-regulated learning sub-dimension with the largest percentage of modeled time (4:38) was self-instruction (39.21%). The second most modeled self-regulation variable was metacognitive modeling (12.69% or 1:30). Goal-setting behaviors were modeled 1.13% of the overall time, and task strategy behaviors were absent. There was a direct observed relationship between how much time was spent modeling sub-dimensions of self-regulated learning and coping group postintervention scores for those sub-dimensions.

Measures of Self-Efficacy for Classical Guitar Performance

Cronbach's alpha internal reliability coefficients for the 12-item Self-Efficacy for Classical Guitar Performance Measure (SECGPM) were $\alpha = .926$ for preintervention scores and $\alpha = .953$ for postintervention scores, indicating a very high degree of internal consistency among scale items. Cronbach's alpha internal reliability coefficients for sub-dimensions of the SECGPM are shown below in Table 5. The number of items in each dimension were pitch ($n = 1$), rhythm/tempo ($n = 3$), interpretation/musical effect ($n = 4$ items), technique ($n = 3$ items), and tone ($n = 1$ items).

Table 5

Cronbach's Internal Reliability for Self-Efficacy for Classical Guitar Performance Sub-Dimension

	Pre-study	Post-study
Pitch		
Rhythm/tempo	.881	.897
Interpretation/musical effect	.909	.900
Technique	.845	.870
Tone		

Table 6 presents the descriptive statistics for the pre- and postintervention administrations of the SECGPM. The 12-item measure resulted in a maximum potential composite score of 120. The composite mean scores for the mastery group were 75.10 (*SD* = 17.01) preintervention and 93.93 (*SD* = 16.26) postintervention, indicating an increase in perceived self-efficacy for guitar performance across the two periods. Data indicated normal skewness (-.45) and kurtosis values (-.16) at the preintervention assessment; however, post-intervention data indicated a slightly positive skew (1.05) and a more peaked distribution (kurtosis = 2.29). Composite mean scores for the coping model group were 84.28 (*SD* = 13.86) at preintervention, and 101.28 (*SD* = 12.22) at postintervention, indicating an increase in perceived self-efficacy for guitar performance across the two time periods. Data indicated skewness values within the normal range at both preintervention (-.03) and postintervention (-.67) time periods, and kurtosis values were similarly within the normal range at pre-intervention (.07) and postintervention (-.19) periods.

Table 6

Descriptive Statistics for Measures of Self-Efficacy for Classical Guitar Performance Achievement by Experimental Condition, Pre- and Post-Test

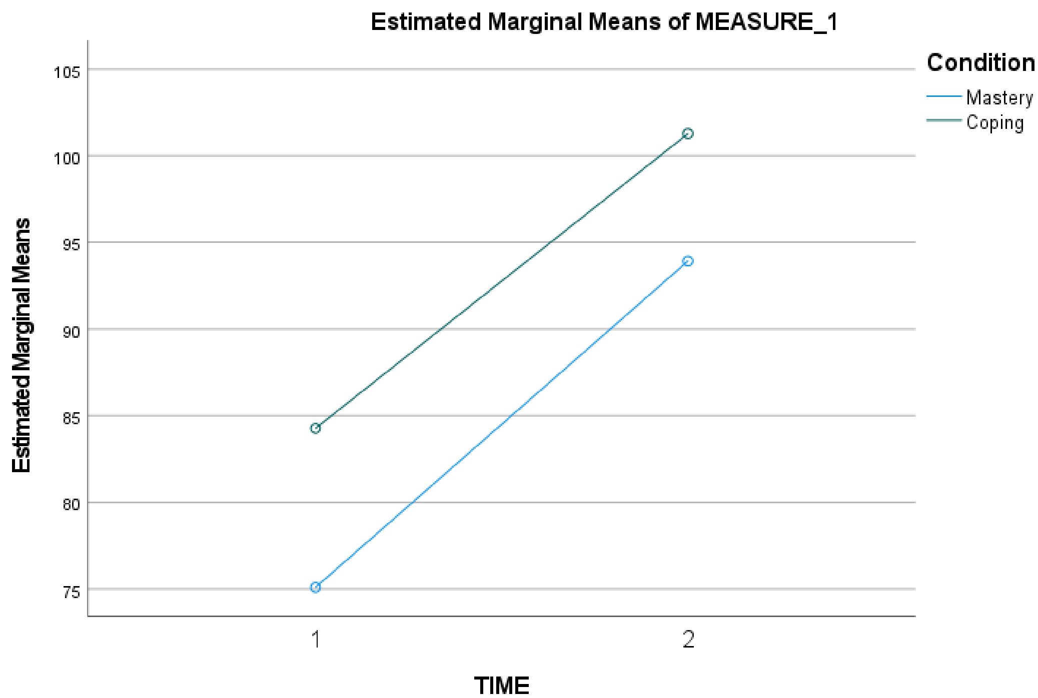
	Mastery				Coping			
	Pre-study (*n* = 41)		Post-study (*n* = 41)		Pre-study (*n* = 40)		Post-study (*n* = 40)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Pitches	7.27	1.67	8.78	1.17	8.12	1.24	9.13	1.07
Perform correct notes	7.27	1.67	8.78	1.17	8.12	1.24	9.13	1.07
Rhythm/tempo	17.68	5.43	23.51	4.49	19.98	5.08	25.00	3.49
Perform correct rhythms	6.83	1.90	8.39	1.34	7.50	1.55	8.80	1.11
Perform at the indicated tempo (speed)	5.80	1.99	7.71	1.63	6.60	1.89	8.25	1.15
Perform without hesitations	5.05	2.25	7.41	1.86	5.88	2.19	7.95	1.61
Interpretation/musical effect	22.17	7.31	29.80	6.05	24.88	6.61	32.38	4.67
Perform dynamics as indicated	5.55	2.06	7.41	1.72	6.32	1.80	8.12	1.31
Perform tempo changes as indicated (“ritard” and “a tempo”	5.61	2.18	7.88	1.62	6.32	1.98	8.50	1.38
Perform smoothly connected notes (no spaces between the notes)	5.37	1.93	7.34	1.83	6.05	1.93	7.93	1.29
Perform with a correct balance (melody played louder than the accompaniment)	5.54	1.98	7.17	1.63	6.17	1.91	7.83	1.55
Technique	22.49	3.86	24.61	4.77	24.55	3.00	26.85	2.69

Position your guitar correctly (fretboard at roughly 45 degree angle, guitar positioned reasonably in relation to the torso)	7.68	1.54	8.41	1.88	8.40	1.19	9.12	0.94
Position your plucking hand forearm, hands and fingers correctly (forearm placed mid-way between the wrist and elbow, above the bridge; forearm and hand aligned, wrist elevated from the body of the guitar, fingers curved and in their mid-way position of movement)	7.29	1.66	8.05	1.76	8.03	1.19	8.83	1.01
Perform correct (a) fretting- and (b) plucking-hand fingerings	7.51	1.67	8.15	1.77	8.13	1.16	8.90	1.08
Tone	5.49	2.09	7.22	1.89	6.75	1.48	7.93	1.51
Perform notes in a clean, clear, manner (no buzzes or snapping of strings)	5.49	2.09	7.22	1.89	6.75	1.48	7.93	1.51
Composite	75.10	17.01	93.93	16.26	84.28	13.86	101.28	12.22

In order to investigate the effect of the experimental treatment on self-efficacy for classical guitar performance, a mixed design ANOVA was calculated to determine whether the pre- and postintervention mean scores differed according to the between-subjects factor of experimental group and the within-subjects factor of time. Levene's tests confirmed homoscedasticity for preintervention ($F = 3.285$; $p = .074$), and postintervention ($F = 1.064$; $p = .305$) data and Mauchly's Test of Sphericity confirmed that the sphericity assumption was met. Results of the ANOVA indicated a significant main effect of condition, $F(1, 79) = 8.910$, $p = .004$, partial eta^2 = .101, and a significant main effect of time, $F(1, 79) = 93.838$, $p < .001$, partial eta^2 = .543. There was no significant interaction effect, $F = .245$; $p = .622$. However, an independent samples *t*-test revealed a significant difference ($t = -2.659$, $p = .005$) in preintervention self-efficacy for classical guitar performance scores by instructional group, calling into question the results for the main effect of condition on postintervention self-efficacy scores. An examination of the plot of estimated marginal means (Figure 13) indicated a clear ascending trend for both treatment groups, with mastery and coping model group means increasing over the course of the study. Wilcoxon Signed-Ranks Tests confirmed that postintervention ranks of the SECGPRS scores were significantly higher than preintervention ranks for both the mastery condition ($Z = -\ 4.783$, $p < .001$) and the coping condition ($Z = -\ 5.192$, $p < .001$), indicating that both groups' self-efficacy for guitar performance improved over the course of the study.

Figure 13

Plot of Estimated Marginal Means for Self-Efficacy for Guitar Performance Achievement by Experimental Treatment Group



Bivariate correlations were calculated among subjects' background variables and composite self-efficacy for classical guitar performance scores. Results (see Table 7) mainly indicated weak, non-significant correlations with pre- and postintervention scores. Interestingly, guitar playing history did not correlate with confidence for playing the guitar.

Table 7

Correlations Among Background Variables and Composite Self-Efficacy for Classical Guitar Performance Scores (N = 81)

	Mastery Group ($n = 41$)		Coping Group ($n = 40$)	
Variable	*Pre*	*Post*	*Pre*	*Post*
Have you ever played the guitar?	.25	.06	.22	.29
How long have you played the guitar for?	.26	.07	.21	.26
How would you rate your guitar playing skills?	.26	.09	.26	.27
Have you ever played a musical instrument other than the guitar?	.11	-.10	.26	.17
How long have you played a musical instrument other than the guitar for?	.23	.05	.37*	.26
How would you rate your playing skills for instruments other than the guitar?	.20	-.10	.51**	.35*
What option describes you? Male Female	-.11	-.04	.02	.24

Classical Guitar Performance Achievement

The achievement results are based on the scores from 81 participants from groups comprised of coping ($n = 40$) and mastery conditions ($n = 41$). The Cronbach's alpha internal reliability coefficients for the 12-item Classical Guitar Performance Rating Scale (CGPRS) were $\alpha = .717$ at preintervention and $\alpha = .587$ at postintervention. These scores indicate a low to moderate degree of internal consistency among scale items; thus, results should be viewed with caution. A review of the data suggested that removing individual items would not substantially increase reliability levels.

Scores on items representing each of the five performance dimensions of pitch ($n = 1$), rhythm/tempo (*n* = 3), interpretation/musical effect (*n* = 4 items), technique (*n* = 3 items), and tone (*n* = 1 item) were summed to provide dimension scores at pre- and postintervention time points. Internal reliability coefficients were calculated for each dimension (see Table 8), with results indicating low to moderate internal reliability.

Table 8

Cronbach's Internal Reliability for Classical Guitar Performance Rating Scale Sub-Dimension

	Pre-study	Post-study
Pitch		
Rhythm/tempo	.683	.668
Interpretation/musical effect	.570	.343
Technique	.557	.382
Tone		
Composite	.717	.587

A guitar specialist from the College of Examiners at the Royal Conservatory of Music assessed performances. All item scores were summed to provide single achievement scores for the pre- and postintervention assessments. To evaluate interjudge reliability, the researcher, a guitar specialist from the College of Examiners at the Royal Conservatory of Music, assessed 48 of the 162 performances (30%). Reliability was assessed by examining Pearson Product Moment correlations between the expert judge's and the researcher's scores. Interjudge reliability for the individual items (see Table 9) ranged from $r = .84$ ($p < .01$) to $r = .98$ ($p < .01$), while coefficients for dimension totals ranged from $r = .96$ ($p < .01$) to $r = .98$ ($p < .01$). The reliability coefficient for composite scores was $r = .99$ ($p < .01$) indicating very high interjudge reliability for composite achievement scores.

Table 9

Interjudge Reliability for CGPRS Achievement Item, Dimension, and Composite Scores (N =81)

Subscale	Item	*R*
Pitches		98**
	Performed correct notes	.98**
Rhythm/tempo		.98**
	Performed correct rhythms	.96**
	Performed at the indicated tempo	.97**
	Performed without hesitations	.98**
Interpretation/musical effect		.96**
	Performed dynamics as indicated	.84**
	Performed tempo changes as indicated	.98**
	Performed with smoothly connected notes (no spaces between the notes)	.97**
	Performed with a correct balance (melody played louder than the accompaniment)	.90**
Technique		.97**
	Guitar was positioned correctly (fretboard at roughly 45 degrees angle, guitar positioned reasonably in relation to the torso)	.98**

	Correct positioning of the plucking hand forearm, hands and fingers ([a] forearm placed mid-way between the wrist and elbow, above the bridge; [b] forearm and hand aligned, [c] wrist elevated from the body of the guitar, [d] fingers curved and in their mid-way position of movement)	.93**
	Performed correct (a) fretting- and (b) plucking-hand fingerings	.98**
Tone		98**
	Performed notes in a clean, clear, manner (no buzzes, muffled notes or snapping strings)	.98**
Composite		.99**

Note. ***p* < .01. **p* < .05.

Table 10 presents the descriptive statistics for the achievement scores on participants' final performance video submissions as assessed by the expert judge. The 12-item measure had a maximum potential composite score of 120. The composite mean scores for the mastery group were 77.66 (*SD* = 14.82) at preintervention and 89.29 (*SD* = 13.27) at postintervention. Data indicated normal skewness values at both preintervention (0.13) and postintervention (-0.45) time periods. Kurtosis values were also within the normal range at preintervention (-1.04) and postintervention (-0.41) time points.

The composite scores for the coping group were 78.95 (*SD* = 20.38) at preintervention, and 89.18 (*SD* = 13.16) at postintervention, indicating a slight improvement in performance and a marked decrease in variability over the study interval. Data indicated normal skewness values at both preintervention (-0.14) and postintervention periods (-0.29), while kurtosis values indicated a slight peak at preintervention (-1.19) with a return to normal range at postintervention (-0.68).

Table 10

Descriptive Statistics for Scores on the CGPRS by Experimental Condition, Pre- and Post-Study

	Mastery Group				Coping Group			
	Pre (*n* = 41)		Post (*n* = 40)		Pre (*n* = 40)		Post (*n* = 40)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Pitches								
Performed correct notes	9.00	2.03	8.90	2.30	9.23	1.67	9.45	0.88
Rhythm/tempo	21.59	6.33	24.22	5.62	20.60	8.77	23.75	6.64
Performed correct rhythms	7.88	2.29	8.05	2.33	7.60	2.71	8.50	1.77
Performed at the indicated tempo	6.98	3.40	8.20	2.49	6.67	3.42	7.75	3.17
Performed without hesitations	6.73	3.23	7.98	2.59	6.33	4.17	7.50	3.19
Interpretation/musical effect	19.51	8.57	25.44	7.20	22.97	8.45	24.98	6.18
Performed dynamics as indicated	4.90	3.31	7.73	2.60	6.60	2.57	6.57	2.53
Performed tempo changes as indicated	6.29	3.35	6.63	2.63	7.13	3.26	8.18	1.90
Performed with smoothly connected notes (no spaces between the notes)	4.95	2.66	6.15	2.67	5.35	2.82	6.28	2.74
Performed with a correct balance (melody played louder than the accompaniment)	3.37	4.01	4.93	3.50	3.90	3.71	3.95	3.99
Technique	22.66	4.08	25.17	3.85	21.65	5.38	25.73	3.78
Guitar was positioned correctly (fretboard at roughly 45 degrees angle, guitar positioned reasonably in relation to the torso)	5.66	2.50	7.80	2.19	5.25	2.91	8.13	2.22
Correct positioning of the plucking hand forearm, hands and fingers ([a] forearm	7.56	2.15	8.07	1.93	7.30	1.87	8.58	1.62

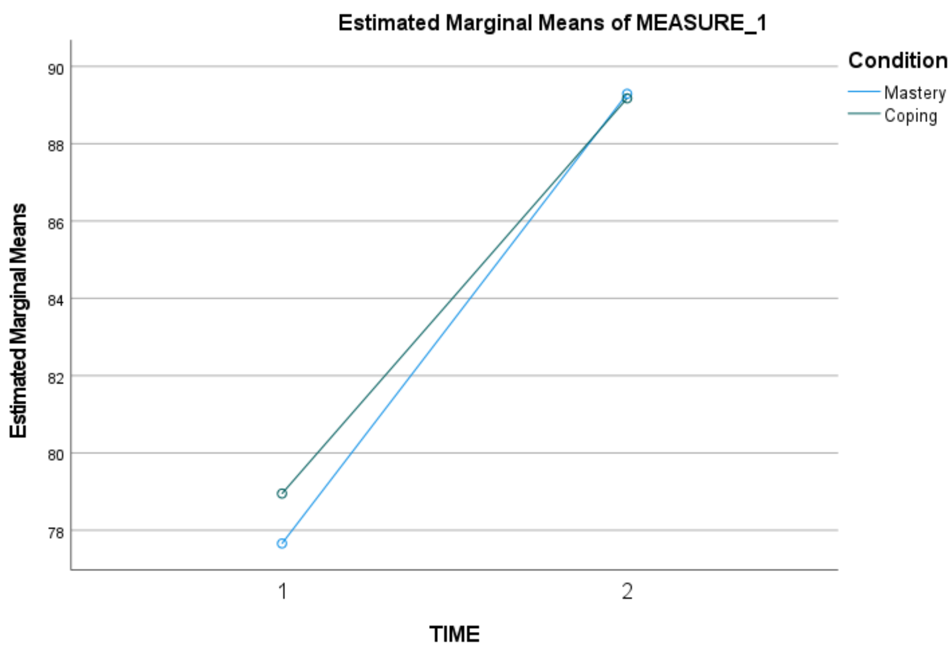
placed mid-way between the wrist and elbow, above the bridge; [b] forearm and hand aligned, [c] wrist elevated from the body of the guitar, [d] fingers curved and in their mid-way position of movement)								
Performed correct (a) fretting- and (b) plucking-hand fingerings	9.44	1.38	9.29	1.29	3.90	3.71	9.03	1.93
Tone								
Performed notes in a clean, clear, manner (no buzzes, muffled notes or snapping strings)	4.90	3.89	5.56	3.33	4.50	3.99	5.28	3.80
Composite Scores	77.66	14.82	89.29	13.27	78.95	20.38	89.18	13.16

In order to investigate the effect of the experimental treatment on classical guitar performance achievement, a mixed-design ANOVA was calculated to determine whether the mean scores differed according to the between-subjects factor of experimental group and the within-subjects factor of time. Levene's tests disconfirmed homoscedasticity for preintervention data ($F = 8.939$; $p = .004$) but confirmed homoscedasticity for postintervention data ($F = .005$; $p = .945$). Mauchly's Test of Sphericity confirmed that the sphericity assumption was met. A *t*-test revealed no significant difference ($t = -0.326$, $p = .373$) preintervention for classical guitar performance scores by condition group. Results of the ANOVA indicated a non-significant main effect of condition, $F(1, 79) = .034$, $p = .854$, and a significant main effect of time, $F(1, 79) = 59.857$, $p < .001$, partial eta^2 = .431. There was no significant interaction effect, $F = .249$; $p = .619$. Wilcoxon

Signed-Ranks Tests indicated that postintervention ranks of performance achievement were statistically significantly higher than preintervention ranks for both the mastery condition (Z = - 4.441, p < .001) and the coping condition (Z = -4.134, p < .001), indicating that both groups developed their guitar performance skills over the intervention period. An examination of the plot of estimated marginal means (Figure 14) indicated a convergent trend in achievement scores between the two treatment groups from pre- to postintervention.

Figure 14

Plot of Estimated Marginal Means for Classical Guitar Performance Achievement by Experimental Treatment Group



Bivariate correlations were calculated for subjects' background variables and composite classical guitar performance achievement scores. Results (see Table 11) mainly indicated weak, non-significant correlations. One exception was the variable of self-rating for guitar playing ability which showed a significant correlation with performance achievement at postintervention for the mastery condition (*p* = .36, *p* < .05) and both preintervention (*p* = .46, *p* < .05) and postintervention (*p* = .39, *p* < .05) for the coping condition.

Table 11

Correlations Among Background Variables and Composite Classical Guitar Performance Achievement Scores (N = 81)

	Mastery Group (*n* = 41)		Coping Group (*n* = 40)	
Variable	*Pre*	*Post*	*Pre*	*Post*
Have you ever played the guitar?	.21	.29	.43**	.29
How long have you played the guitar for?	.22	.30	.44**	.34*
How would you rate your guitar playing skills?	.27	.36*	.46**	.39**
Have you ever played a musical instrument other than the guitar?	.04	.20	.07	.06
How long have you played a musical instrument other than the guitar for?	.25	.32*	.19	.14
How would you rate your playing skills for instruments other than the guitar?	.19	.29	.21	.11
What option describes you? Male Female	-.18	-.07	.22	.11

With the exception of one score (how long have you played a musical instrument other than the guitar, mastery, *p* = .32, *p* < .05), variables concerning instruments other than the guitar did not correlate with pre- or postintervention scores for classical guitar performance among either of the two study conditions. Instead, guitar-related pre-study variables correlated moderately with pre and postintervention scores for performance achievement among coping condition participants but not among mastery condition participants.

Correlations Among Self-Efficacy for Self-Regulated Learning, Self-Efficacy for Classical Guitar Performance, and Classical Guitar Performance Achievement

Pearson correlations were computed to determine if there were any relationships among scores for participants' self-efficacy for self-regulated learning, self-efficacy for classical guitar performance, and classical guitar performance achievement. Preintervention scores for the total sample (see Table 12) indicated that self-efficacy for learning was significantly correlated with self-efficacy for performance (r = .45, p < .01) and performance achievement (r = .31, p < .01). Self-efficacy for performance was significantly correlated with achievement scores (r = .44, p < .01). Postintervention, the correlation coefficient between self-efficacy for learning and self-efficacy for performance increased (r = .75, p < .01), while the correlation between self-efficacy for learning and performance achievement remained at a similar level (r = .38, p < .01). However, the strength of the correlation between self-efficacy for performance and achievement scores declined (r = .31, p < .01).

Table 12

Pearson Correlations Among Pre and Postintervention Composite Scores for Self-Efficacy for Self-Regulated Learning, Self-Efficacy for Classical Guitar Performance, and Classical Guitar Performance Achievement (N = 81)

Item	SEL 1	SEL2	SEP 1	SEP 2	VID 1	VID 2
SEL 1		.51**	.45**	.30**	.31**	.27*
SEL 2			.48**	.75**	.33**	.38**
SEP 1				.43**	.44**	.39**
SEP 2					.20	.31**
VID 1						.70**
VID 2						

Note: SEL = Self-efficacy for self-regulated learning; SEP = Self-efficacy for classical guitar performance; VID = Classical guitar achievement; 1 = Pretest; 2 = Posttest.
**$p < .01$. *$p < .05$.

Pearson correlations were also calculated to explore whether there were differences in correlation patterns between condition groups (Table 13). Results revealed similar patterns for the group analyses as were evident for the total sample, with one exception. In coping group participants, post-intervention self-efficacy for performance and achievement scores were not significantly correlated ($r = .23$).

Table 13

Pearson Correlations Among Pre and Postintervention Composite Scores for Self-Efficacy for Self-Regulated Learning, Self-Efficacy for Classical Guitar Performance and Classical Guitar Performance Achievement for Coping (n =40) and Mastery Conditions (n = 41)

Item	SEL 1	SEL2	SEP 1	SEP 2	VID 1	VID 2
SEL 1		.58**	.52**	.36*	.49**	.39*
SEL 2	.47**		.55**	.76**	.29	.49**
SEP 1	.46**	.35*	.	.31*	.58**	.48**
SEP 2	.28	.74**	.51**		.15	.39*
VID 1	.20	.36*	.35*	.27		.58**
VID 2	.16	.28	.32*	.23	.81**	

Note: Mastery condition correlations are in the upper triangular matrix, coping condition correlations are in the lower matrix. SEL = Self-efficacy for self-regulated learning; SEP = Self-efficacy for classical guitar performance; VID = Classical guitar achievement;
1 = Pretest; 2 = Posttest.
$^{**}p < .01$. $^{*}p < .05$.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate the effects of learning via mastery versus coping models on self-efficacy for self-regulated music learning, self-efficacy for classical guitar performance, and achievement in classical guitar performance. A secondary purpose of this study addressed the extent to which the variables of self-efficacy for self-regulated music learning, self-efficacy for music performance and classical guitar performance achievement were correlated. The sample for the study consisted of 86 undergraduate non-music majors recruited from two beginning guitar courses at a large Canadian university. The average participant age was approximately 21 years, and the sample was composed of 26 males and 60 females who reported limited previous experience with playing the guitar yet considerable experience playing instruments other than the guitar.

Achievement in classical guitar performance was measured using the researcher-constructed Classical Guitar Performance Rating Scale (CGPRS). Data regarding participants' self-efficacy for self-regulated music learning were collected using the researcher-constructed Self-Efficacy for Self-Regulated Music Learning Scale (SESRLMS). Data regarding participants' self-efficacy for classical guitar performance were collected using the researcher-constructed Self-Efficacy for Classical Guitar Performance Scale (SECGPRS). Internal reliability coefficients for the two efficacy measures were high (> .90). Internal reliability coefficients for the performance achievement measures ranged from poor (.59) to fair (.72). Interjudge reliability coefficients for the achievement measure were very high (> .95). A researcher-designed survey was used to collect data on participant experience variables such as prior experience playing the guitar, self-rating of guitar playing ability, previous experience playing instruments other than the guitar, and self-rating of ability to play instruments other than the guitar.

All participants received eight instructional video model treatments of approximately one to two minutes each, once per week over an eight-week time span. Participants were randomly assigned to one of two instructional conditions: (a) coping model or (b) mastery model. The pre- and postintervention criterion task required participants to perform the 16-measure classical guitar piece *Dance of the Downward Skip* (see Appendix J). The participants recorded two performances, the first after a two-week orientation period, the second at the conclusion of the eight-week intervention period. Participants recorded and uploaded their videos to YouTube, placed them in privacy mode, and submitted URL links, which were then placed in a random order for evaluation by an expert judge. Participants completed the Self-Efficacy for Self-Regulated Musical Learning Scale (SESRMLS) at the beginning of week two. They then completed the Self-Efficacy for Classical Guitar Performance Rating Scale (SECGPRS) immediately before recording the first performance piece at the end of week two. After an eight-week intervention, these measures were administered again with two further questions concerning participant viewing habits for the video intervention and perceived similarity to the video model.

Each coping model treatment video contained three short excerpts edited together. The excerpts demonstrated gradual improvement across a one-week learning period corresponding to the “can’t do,” “coping,” and “exemplary” phases of coping models. The model verbalized statements of increasing confidence for self-efficacy, ability, task difficulty and attitude across the three phases. Mastery model videos comprised phase three of the coping model (“exemplary”) with verbalizations removed. A 21-year-old female undergraduate classical guitar performance major performed all the coping model and mastery model video performances for the study. Participants were told the model was a student enrolled in a previous iteration of the beginning guitar class.

Coping model video recordings were subsequently coded by the researcher for time (in seconds) spent exhibiting the following theoretical sub-dimensions of self-regulated learning behaviour: (a) self-instruction: overt or covert descriptions of how to proceed as one executes a task; (b) metacognitive monitoring: informal mental tracking of one’s performance processes and outcomes; (c) task strategies: analyzing tasks and identifying specific advantageous methods for learning or performing various components of a task; and (d) goal setting: deciding upon specific outcomes of learning or performance.

Conclusions

The primary findings of the study were:

1. Participants’ self-efficacy for self-regulated music learning increased significantly following exposure to a video model treatment. There was no significant effect on self-efficacy found for model condition.
2. Participants’ self-efficacy for the self-regulated music learning sub-dimension of self-instruction increased significantly following exposure to a video model

treatment. The interaction of model condition and time was significant, suggesting that model condition played a role in the development of confidence for self-instruction over the course of the study. Participants who were exposed to a coping model made significantly greater gains in self-efficacy for self-instruction than participants who were exposed to a mastery model.

3. Participants' self-efficacy for classical guitar performance increased significantly following exposure to a video model treatment, with participants in the coping model condition scoring significantly higher on the dependent variable postintervention than those in the mastery condition. However, preintervention differences in group mean scores in favour of the coping group call into question the findings related to the main effect of model condition.
4. Participants' achievement in classical guitar performance increased significantly over the course of the study. However, there was no effect on achievement found for model condition.
5. Preintervention scores for the total sample indicated that self-efficacy for learning was significantly correlated with self-efficacy for performance and performance achievement. Self-efficacy for performance was significantly correlated with performance achievement scores. Postintervention, the significant correlation coefficient between self-efficacy for learning and self-efficacy for performance increased substantially, while the correlation between self-efficacy for learning and performance achievement remained at a similar level as preintervention. The strength of the correlation between self-efficacy for performance and achievement scores declined postintervention. Correlational results revealed similar patterns

for the separate condition group analyses as were evident for the total sample, with one exception. In coping group participants, post-intervention self-efficacy for performance and achievement scores were not significantly correlated.

6. The high internal consistency coefficients found for the Self-Efficacy for Self-Regulated Music Learning Scale suggest that the measure is a reliable instrument for measuring self-efficacy for self-regulated learning.
7. The high internal consistency coefficients found for the Self-Efficacy for Classical Guitar Performance Rating Scale suggest that the measure is a reliable instrument for measuring self-efficacy for classical guitar performance.

Implications

The results of this study have substantial theoretical and practical implications for researchers, classroom educators, studio instructors, and community guitar orchestra conductors. The present study found some support for the claim that coping models may positively affect levels of self-efficacy for self-regulated learning, although results did not reach the level of statistical significance. Lewis's (2018) study previously illustrated how these peer interactions might appear in a real-world setting. In that study, observing a peer coping model prompted one participant to consider the peer's challenges and how they might overcome them. The same participant was also prompted to think about how she might explain problem solutions and how to best guide the peer to a satisfactory resolution of the problem. Thus, observing a peer engage with a musical problem elicited an inner dialogue in the observer. This dialogue involved aspects of metacognitive monitoring, task assessment, strategy choice and self-instruction. In this way, observing coping model behaviours could mediate cognitive engagement. In the present study, there was a direct observed relationship between how much time was spent modelling sub-dimensions of self-regulated learning and coping group postintervention scores for those sub-dimensions. Future studies should be constructed using mixed methods designs so researchers can more clearly understand what self-regulated learning sub-processes may be affected by coping models, what real-world conditions (e.g., masterclasses) and variables (i.e., age, sex, ability level) may foster positive self-efficacy perceptions in observers and whether those conditions and variables could be cultivated in classroom and studio settings.

The significant interaction effect of the independent variables of model condition and time on levels of self-efficacy for self-instruction in favour of coping model group participants provides support for Bandura's theory (1997) that vicarious experience is a major determinant in the development of self-efficacy in lower-performing individuals. Self-instruction occurs when individuals describe or guide themselves in how to proceed as they execute a task (Mechenbaum, 1977; Zimmerman, 2000, p. 18). Although the effect of models has been examined extensively in the music education literature, only Lewis (2018) has previously reported on the potential effects of coping models. Lewis's study of nine undergraduate vocalists revealed that music students continually observed, made comparisons, and learned from their peers, with self-efficacy beliefs positively affected as a result. The coping model participants in the present study were statistically different from the mastery model participants regarding their confidence level for self-instructing and self-guiding their musical learning, supporting Lewis' qualitative findings.

The advanced adult musicians in Kim's (2008) and Nielsen's (2001) studies also engaged in self-instruction and self-guiding verbalizations. However, the content and manner in which these participants self-guided their verbalizations varied. For example, one of Nielsen's participants employed self-instruction to help focus attention on the musical task and to follow a performing strategy sequentially. Kim (2008) found that three of her participants used self-guided verbalizations primarily to solve difficult problems and to apply practice strategies. However, the researcher also detected a trend in self-instruction that indicates the existence of a progression of stages for becoming an independent learner. The first stage involves self-guiding statements focusing on the application of strategies. The second stage concerns instructing oneself to adjust strategies when they are ineffective. The third stage focuses on self-guiding instructions that allow an individual to get to the core of a musical problem, and the final stage deals with statements that help one transition from self-monitoring specific actions to self-monitoring the outcome of those actions. Caution should be exercised when interpreting these results, however. The researchers in each of these two studies prompted the students' use of concurrent and retrospective verbal reports as part of the methodological design. It is difficult to know if these participants would have engaged freely in overt self-instruction had they not been instructed to do so. Varela et al., (2016) have posited that the cognitive demands involved during musical practice may inhibit students from self-verbalizing except in the most basic circumstances. Data supporting this claim comes from one of Kim's (2008) participants who refrained from self-instruction for one week because she did not want to be hindered by her self-guided verbalizations. From another vantage point, it is also possible that musicians are constantly self-instructing themselves but in a covert manner that is difficult to observe or measure. More research is needed to understand how individuals guide and self-instruct their learning during musical practice, what kinds of self-instruction they engage in, and, most importantly, what modelling methods can best foster the transmission of these skills to students in real-world settings.

It is reasonable to posit that the significant interaction effect found for the self-instruction sub-dimension may have resulted from coping participants observing a larger percentage of self-instruction behaviours via the coping model over the eight-week study period. These data further support a positive correlation between time spent watching self-regulated learning sub-dimensions and increased efficacy for those sub-dimensions.

The sub-dimension of task strategies refers to analyzing tasks and identifying specific methods for learning or performing various task components (Zimmerman & Kitsantas, 2005). Results from both Leon-Guerrero (2008) and Oare (2007) indicate that novice instrumentalists rely primarily on repetition and returning to the beginning of a piece as their primary practice strategies. Coping model videos in this study modelled contextual practice strategies aimed at increasing levels of confidence in observers for successfully enacting those strategies. Results from these novice guitar players indicate that self-efficacy for task strategies increased across the study duration to a greater extent for coping model participants than mastery model participants. Coping model participants may have learned the practice strategies that they observed from the coping model. However, observing participants during practice would be necessary to confirm this hypothesis, and future research might add this component to the research design.

Goal setting entails organizing goals hierarchically with short-term process goals regulating long-term outcome goals (Zimmerman, 2000, p. 17). Coping condition novice participants in this study increased their self-efficacy for goal setting over the course of the study compared to the mastery condition, although this difference did not rise to the level of statistical significance. Goal setting was admittedly challenging to convey through behavioural modelling, perhaps because goals refer to hoped-for future achievements. However, there were several statements concerning goal setting at the beginning of phase two (coping phase) within the coping model videos. For example, the coping model stated, “I’m gonna try correcting my technique this week” (video one, 0:28 to 0:31). However, these statements were very short, lasting no more than a few seconds. While goal setting was difficult to model overtly, distal goals were implied. For instance, it was an implied goal that the coping model would submit a technically secure and musically convincing guitar performance for weekly grading and assessment. Proximal goals were also implied. For example, it was implied that modelled practice strategies and self-guided verbalizations focusing on improving technical and musical performance skills were proximal goals. It is possible that coping model participants may have learned to set goals due to observing the model engage with her own proximal and distal goals. Future studies exploring the behavioural effects of those observing coping models must confirm this conjecture.

The metacognitive monitoring sub-dimension registered the second largest percentage of coded video time, the second largest postintervention composite score, and the second largest pre- to postintervention growth in self-efficacy among coping condition participants. These data further support a positive correlation between time spent observing self-regulated learning sub-dimensions and increased efficacy for those sub-dimensions. Metacognitive monitoring refers to tracking specific aspects of one’s performance, the conditions that surround it, and the effects that it produces (Zimmerman

2000, p. 19). Prior research has indicated mixed results for this dimension, with novice middle school participants exhibiting sophisticated metacognitive monitoring skills (Chung, 2006) while low-ability university students exhibited few metacognitive monitoring skills (McPherson et al., 2019). In the present study, self-efficacy scores for this dimension were higher at postintervention for the coping condition than the mastery condition, indicating that the coping participants felt more confident in their ability to monitor important aspects of their performance. Once again however, these differences did not meet the threshold of statistical significance. Metacognitive skills may also have been positively affected by observing the coping model; however, a behavioural analysis of participants' practice would be needed to confirm this speculation. Like the task strategy and goal setting sub-dimensions, the metacognitive modelling sub-dimension was conveyed implicitly through a series of behaviours designed to indicate that monitoring had occurred. For example, while monitoring her playing for accurate dynamic contrasts, the model abruptly stopped, shook her head, and said, "Nope, too loud." She played the passage again, this time giving the dynamic contrast a nod of approval (video 3, 0:42 to 1:09). Kazdin (1989) states that monitoring can have reactive effects because people often react to such monitoring by changing their behaviour.

Similarly, Miksza (2012) refers to the close connection between metacognitive monitoring and self-assessment by suggesting that metacognitive approaches and actions in the moment may be seen as parallel processes (p. 329). Although self-assessment was not a variable of concern for the present study, future researchers should explore whether self-assessment can be incorporated into coping model video interventions and whether self-efficacy for self-assessment and self-assessment skills may be affected by observing these models. Other monitoring behaviours included the coping model diagnosing challenges in her playing, setting proximal goals as a result, choosing strategies for overcoming those challenges, applying strategies during practice, monitoring the results of those strategies, and moving to a new challenge or selecting a different strategy as the situation required. Future research might include cognitive modelling incorporating modelled explanations and demonstrations, verbalizing the model's thoughts and reasons for performing the actions (Meichenbaum, 1977).

Results indicated a significant main effect of condition and a significant main effect of time on self-efficacy for classical guitar performance. However, a significant difference in preintervention self-efficacy for classical guitar performance scores by condition group call into question these results. Statistically different preintervention efficacy scores may have resulted from unequal numbers of participants with previous guitar performance experience in the condition groups. Twenty percent more coping group participants reported playing the guitar prior to the study's outset than mastery group participants, which may have inflated confidence levels for guitar performance among coping participants.

Previous research has found significant relationships between self-efficacy for performance and achievement in music performance (e.g., Clark, 2008; McCormick & McPherson, 2003; McPherson & McCormick, 2006; Ritchie & Williamon, 2011). The current study further supports those findings. The relationship between undergraduate non-music majors' self-efficacy for guitar performance scores and expert ratings of their performances was significantly correlated at both pre- and postintervention times, indicating that students had a realistic understanding of their ability to perform important skills related to guitar performance.

Self-rating of playing skills for instruments other than the guitar was significantly correlated with self-efficacy for self-regulated learning preintervention for both condition groups, suggesting that prior learning on instruments other than the guitar may have provided participants with experience from which to judge their future ability to self-regulate their learning on the guitar. The strength of these correlations decreased over time, more dramatically for the mastery group. These results suggest that strong initial beliefs for self-regulated guitar learning based on prior experience with other instruments diminished over the course of the learning phase.

Participants' background variables related to instruments other than the guitar for duration of playing and self-rating of skill were moderately to strongly correlated (r= .39 to .53) with preintervention self-efficacy for self-instruction scores among both conditions. This finding suggests that participants who played instruments other than the guitar and rated their ability to play them moderately high felt confident in their ability to self-instruct their musical learning on the guitar, preintervention. However, postintervention correlation scores for these two items declined substantially for the mastery condition (r=.50 to r= .18 and r= .47 to r= .06) yet declined only minimally for the coping condition (r= .53 to r= .43 and r= .39 to r= .34). Thus, confidence for the mastery condition participants declined over the study interval yet remained relatively stable for the coping condition participants. Observing a coping model engage in self-instruction behaviours over the course of the study may have sustained coping participants' initial efficacy beliefs for self-instruction based on prior experience with instruments other than the guitar. Bandura (1987) posits that strength and duration of efficacy perceptions come from individuals believing that if a peer model can succeed (i.e., successfully self-instruct their guitar learning), they too could succeed. Observing a mastery model perform flawlessly throughout the study would not convey this same self-instruction information, potentially leading to a reduced perceived self-efficacy for self-instruction gained from prior experience with an instrument other than the guitar.

An important contribution from this study is the creation of a self-efficacy for self-regulated music learning measure. As far as can be determined, this is the first scale to utilize Zimmerman & Moylan's (2009) three-phase model of self-regulation as a theoretical foundation for assessing self-efficacy for self-regulated learning sub-dimensions (self-instruction, metacognitive monitoring, task strategy and goal setting). Analysis of the measure indicated strong psychometric properties. For example, Cronbach's alpha internal reliability coefficients for the 18-item SESRML were $\alpha = .917$ for the pre-intervention scores and $\alpha = .953$ for post-intervention scores, indicating a very high degree of internal consistency among scale items. Additionally, Cronbach's alpha internal reliability for the four sub-dimensions ranged from $\alpha = .776$ to $\alpha = .900$ across pre-and postintervention times. Zimmerman, Bandura, and Pons (1992) constructed their self-efficacy for self-regulated learning measure using items conceptually aligned with the view that self-regulated learning is a relatively stable characteristic. Miksza and Tan (2015) subsequently adapted this measure for use within the domain of music education. However, the present measure utilizes a self-regulated learning model (Zimmerman & Moylan, 2009) that considers SRL situation specific. Thus, items used in the present SESRMLM reflect this reconceptualization toward greater specificity (i.e., "Rate your confidence level right now that you can talk yourself through how to correctly position the guitar, body, hands, and movement of fingers"). Pajares (1996) notes that the more specific a measurement instrument is, the stronger the correlation will be between self-efficacy and performance: "particularized judgments of capability are better predictors of related outcomes than are more generalized self-beliefs" (p. 563). Therefore, the present measure constitutes an advancement in self-efficacy for self-regulated learning measurement.

The present SESRMLM has practical implications for music instructors. For instance, instructors could administer the SESRMLM at the beginning, middle, and end of a learning phase (Osbourne et al. 2021), such as when students prepare for a public performance, an examination, or an audition. Instructors could then identify specific SRL sub-dimensions requiring attention and apply instruction and exercises designed to foster successful engagement with those sub-dimensions. Instructors could also introduce SRL instruction at particular points in the learning process. For instance, goal-setting techniques could be discussed during the initial phase of learning and self-instruction techniques could be addressed during the performance phase. Pre- and postintervention administrations of the measure could also identify whether self-efficacy for self-regulated learning had increased over the learning period due to instruction.

A further contribution from this study is the creation of a self-efficacy for classical guitar performance measure. The SECGPRM is the first self-efficacy measure explicitly designed to assess self-efficacy for technical and musical aspects of classical guitar performance. The psychometric properties of the scale were very strong. Cronbach's alpha internal reliability coefficients for the 12-item self-efficacy for classical guitar performance measure (SECGPM) were $\alpha = .926$ for pre-study scores and $\alpha = .953$ for post-study scores. Both scores indicate a very high degree of internal consistency among scale items. Cronbach's alpha internal reliability for the three sub-dimensions ranged from $\alpha = .845$ to $\alpha = .909$ across pre-and postintervention administrations.

The 12-item SECGPRM was based on the Classical Guitar Performance Rating Scale (CGPRM), also used in the present study. Identical item stems are used for both measures. For example, item four of the SECGPRS asks guitarists to rate their confidence level for "performing without hesitations," while item four of the CGPRM asks adjudicators to assess whether a student "performed without hesitations." This measure design allows for more direct comparisons between self-efficacy for specific guitar skills and assessment of the performance of those skills. For instance, guitar instructors could compare their assessment of a student's performance with the student's confidence level for the same performance. Unaligned items could then be identified. Unaligned items may signal that a student does not understand the meaning of an item, that they have an unrealistic expectation of their ability to enact the requirements of the item or both. Either way, the instructor could then begin the process of discussion and instruction aimed at remediating the discrepancy.

The measure could also be used as a diagnostic tool on its own. For example, students could complete the measure before instruction begins allowing instructors to identify areas where students lack confidence. Then instructional methods could be applied to help develop student confidence in those areas. In a broader sense, such low-efficacy areas could be strengthened through low-stakes performance opportunities that foster mastery experiences, peer performances that may encourage vicarious learning, and judicious praise to bolster persistence and effort.

The results from the current study also have practical implications which support the importance of employing peer coping models as a pedagogical tool in both classroom and studio settings. Instructors infrequently use models because they do not fit easily into the standard music classroom setting and because there is limited opportunity to utilize them in studio settings (Gill et al., 2022). However, previous research has suggested that the use of coping models may be particularly effective with students who struggle with learning, have limited prior musical experience, or are at risk of dropping out of music study. Such students are theorized to have few enactive mastery experiences, low self-efficacy for musical learning, and limited practical skills. Classroom instructors might have students demonstrate real or imagined coping strategies (e.g., a variety of practice strategies, performance self-assessments) to each other in small group contexts (Gill et al., 2022). Instructors should allow space for students to discuss musical difficulties and methods for overcoming those difficulties (coping models) alongside inspirational student performances (mastery models) during class time. Alternatively, instructors could curate video playlists of coping and mastery models for students to view. These playlists could incorporate models from YouTube or mock videos such as the ones created for this study.

The significant relationships among self-efficacy for self-regulated learning, self-efficacy for performance, and performance achievement scores revealed in this research suggest that participants who express confidence for self-regulating their learning are more confident performing and that those who are more confident performing also perform at higher levels of achievement. These results point to the importance of teaching students how to learn and not merely focusing on content. Secondly, instructors should model deliberate practice and self-regulated learning methods for students during classroom and private lessons and provide students with opportunities to practice these methods with instructor oversight and guidance, gradually shifting the responsibility of learning to the student so that they may become autonomous learners.

The internal reliability results of the Classical Guitar Performance Rating Scale (CGPRS) have implications for the scale construction and assessment of guitar achievement. One reason the internal reliability scores of the CGPRS were low may be because novice guitarists find certain aspects of classical guitar performance more difficult than others. Specifically, some items on the scale may be more difficult for novice guitarists to perform than others. However, such low-performing items do not necessarily represent inappropriate criteria for inclusion into a scale. Internal consistency is based on the number of items and the average correlation among all pairs of items within a scale or sub-dimension. A large number of items and a higher average correlation produce higher alpha ratings, while items with dissimilar scores produce low alpha ratings. Statistical analysis methods based on item correlation may simply be the wrong tool to use when researchers wish to conserve item severity as an important variable. To illustrate, scores for the item "Performed correct notes" ranged from 8.90 to 9.45 across the study interval among both conditions and scores for the item "Performed with a correct balance (melody played louder than the accompaniment)" ranged from 3.37 to 4.93 across the study interval among both conditions. The small range of scores within each question and the large difference in scores between each question indicates that novice guitarists find performing correct pitches consistently easier than balancing dynamic levels within complex homophonic textures. However, these items should not be considered unrepresentative of or inappropriate for assessing guitar playing skills, only that they delineate level of difficulty in guitar playing variables.

With this in mind, the 12-item CGPRS may prove a useful tool for guitar researchers and pedagogues. Researchers interested in understanding what aspects of guitar performance exemplify core competencies at differing performance levels could use the CGPRS to construct developmental scales. Item cutoff levels set in advance could identify appropriate items for selected performance levels such as rudimentary, emerging proficient, and exemplary. Items falling below cutoff values would indicate aspects of guitar performance deemed too difficult for the examined level. Eliminating these items would leave only highly correlated items with scores above the cutoff level (Wesolowski et al., 2018). Similarly, guitar orchestra and studio instructors could use the CGPRS as a diagnostic and pedagogic tool when assessing students. Low-scoring items would indicate aspects lacking in student development, high scoring items would indicate achievement. Targeted feedback and instruction could then be applied to low-scoring items. Finally, researchers interested in creating future guitar assessment tools which retain sensitivity to item severity should consider using methodologies designed to capture those aspects. For instance, the CGPRS could be used as the basis for a rubric or with one of the models found within the item response theory family, such as Partial Credit (Wesolowski et al., 2019).

Recommendations

The results from this study suggest a number of possible directions for further research. While this study examined participants' reported self-efficacy for self-regulated learning, observational data exploring how participants self-regulated their learning during practice was not collected. Future coping and mastery model studies might include behavioural analyses of participants' practice behaviours to compare self-regulated learning instances. It is possible that increased levels of self-efficacy associated with the intervention would positively affect self-regulated learning behaviours of participants when practicing.

Care was taken when constructing the coping model videos to avoid overt instruction through cognitive modelling. However, previous research (Schunk 1981) has indicated that students exposed to cognitive models are more successful at solving math problems than those who simply receive explanatory materials. Music researchers might explore the effects of cognitive modelling on novice, lower-achieving, or at-risk music students. Video interventions with peer models shown demonstrating key sub-dimensions of self-regulated learning (e.g., self-assessment, attributions of success or failure, practice strategies, metacognitive monitoring, etc.) while engaging in verbal think-aloud commentary may positively affect students' perceived level of self-efficacy (Meichenbaum, 1977, Miksza, 2015).

Coping models were first used in therapeutic contexts to help reduce negative behaviours associated with fear and phobias. In these studies, mastery models typically engaged fearlessly with snakes, while coping models gradually overcame their fear by reinterpreting their negative thoughts and engaging in coping behaviours such as deep breathing (Meichenbaum, 1971). Similarly, music researchers might employ coping model video interventions with students who suffer from musical performance anxiety. Coping models who verbalize statements of anxiety for musical performance, demonstrate coping strategies such as deep breathing and cognitive reframing, gradually express confidence for public performance, and then successfully perform publicly may affect self-efficacy levels and, by extension, behavioural change in students with performance anxiety. The Dual Processing Self-Regulation Model proposed by Boekaerts (2011) centers on effective coping strategies for managing challenging tasks while guiding individuals toward a path of mastery. This model appears particularly well-suited for addressing performance anxiety in musicians via a coping model intervention.

The present study used two types of model interventions (a coping model and a mastery model), with both conditions registering statistically significant within-group improvement for self-efficacy for self-regulated learning, self-efficacy for guitar performance, and guitar achievement. However, adding a control group would serve as an important benchmark for comparing the experimental groups' results. Future research designs should incorporate such a control group to confirm that study results are actually due to the models rather than extraneous variables.

Limitations

A behaviour analysis of the eight coping model videos uncovered a methodological flaw. Self-regulated learning theory posits that an individual’s ability to analyze tasks and to choose superior task strategies for overcoming difficulties is at the heart of the task strategy sub-dimension (Zimmerman & Kitsantas, 2005). However, these processes were absent from the present study’s coping model behaviours; only the products of these mental processes were modelled. For instance, the model engaged in various task strategies, including slow practice, whole-part-whole practice, and performing hands and parts separately. However, the deliberations behind how and why these strategies were chosen were done off-camera and thus may not have been evident to observers. Goal setting entails organizing goals hierarchically with short-term process goals regulating long-term outcome goals (Zimmerman, 2000, p. 17). These aspects were difficult to convey through behavioural modelling, perhaps because they concern future achievement states. However, there were several statements relating to goal setting at the beginning of coping phases. For example, the coping model states, “I’m gonna try correcting my technique this week” (video one, 0:28 to 0:31). However, these statements were very short, lasting no more than a few seconds. Future studies should include think-aloud commentary illustrating how and why task strategies and proximal and distal goals were chosen.

Coping model videos used for the main study were significantly shorter than those used in the pilot study. Shorter videos were employed to keep participants engaged with the video content and minimize attentional fatigue. It was challenging to keep the videos short while still including four verbal statements (self-efficacy, task difficulty, ability, and attitude) across three coping model phases (“can’t do,” “coping,” and “exemplary”) and behaviorally modelling four self-regulated learning sub-dimensions (self-instruction, metacognitive modelling, task strategies, and goal setting). It is the researcher’s opinion that the number of constructs attempting to be displayed through the model may have diluted the impact of the intervention. Supporting this notion is the behavioural analysis of the coping model videos, which showed that the duration of time a topic was modelled was indicative of the effect on the observer. In other words, there was a direct relationship between the amount of time a sub-dimension was modelled and the extent of improvement seen in scores on that sub-dimension. For these reasons, future researchers interested in exploring the effects of modelling on sub-dimensions of self-regulated learning might limit their focus to one or possibly two constructs at a time.

In summary, the results of this study contribute significantly to the body of existing information regarding the nature of vicarious learning through musical modeling. The findings have strong theoretical implications for music education researchers regarding social cognitive models of learning and the relative effectiveness of contrasting types of musical models. The practical implications of this study are also pertinent to educators. The incorporation of coping and mastery models into guitar curriculum was found to be an important factor to consider when designing on-line classroom instruction and this may have important implications for in person classroom and studio instruction as well, particularly among beginner and low achieving students. The findings of this study offer a variety of new directions for researchers and music educators alike.

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Appendix A

Instrumental Music Background Survey

Thank you for participating in this study! Your answers are important to me, and they may be used to guide the development of future guitar programs. NOTE. This is not a test, and there are no "right" answers. Your answers will remain strictly confidential. To begin with, please place your Research Participant Number and initials in the text box below. Your Research Participant Number can be found at the end of your "Letter of Information and Consent" (LOI) located in your Beginner Guitar Course DropBox folder.

1. Have you ever played the guitar? Yes _____ No _____
2. How long have you played the guitar for? _____
3. How would you rate your guitar playing skills?

   0 1 2 3 4 5 6 7 8 9 10

   Beginner Intermediate Advanced
4. Have you ever played a musical instrument other than the guitar?
   Yes _____ No _____
5. How long have you played a musical instrument other than the guitar for?
   _____
6. How would you rate your guitar playing skills for instruments other than the guitar?

   0 1 2 3 4 5 6 7 8 9 10

   Beginner Intermediate Advanced
7. What is your age? _____
8. What option describes you?

   Female _____ Male _____ Prefer to self-describe ___ Prefer not to answer __

Appendix B

Self-Efficacy for Self-Regulated Musical Learning Scale

SAMPLE QUESTIONS

This questionnaire will ask you how you feel about accomplishing certain music learning tasks. The following two questions will help you understand how to accurately rate your confidence levels.

Rate your level of confidence **RIGHT NOW** that you can lift 10 pounds.
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

Rate your level of confidence **RIGHT NOW** that you can lift 10 pounds.
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

ATTITUDES TOWARDS SPECIFIC MUSICAL PERFORMANCE ACTIVITIES INSTRUCTIONS

This questionnaire contains 18 questions and should take no more than 5 minutes to complete. Before you complete the questionnaire, please take roughly one minute to scan through the sheet music for this week's performance piece Dance of the Downward Skip. The sheet music for the piece can be found in this week's "Weekly Performance Piece" tab within the Course Contents page. As you scan through the sheet music, try to assess what you perceive will be the challenges involved in learning the piece this week. After you have scanned through the sheet music, please rate your level of confidence for each of the following statements, **specifically regarding how you will learn and prepare for this week's video submission of Dance of the Downward Skip.**

Rate your confidence level RIGHT NOW that you can...

1. **Teach yourself how to play correct notes**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

2. **Teach yourself how to play rhythms correctly**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

3. **Teach yourself how to play expressively (i.e., dynamics, flexible tempo [ritards], smoothly connected notes, correct balance [melody played louder than the accompaniment]).**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

4. **Teach yourself how to correctly move your fingers and to position your guitar, body, and hands**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

5. **Observe and correct the positioning of your instrument, body and finger movement**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

6. **Listen carefully to your playing to identify errors**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

7. **Identify practice strategies that work well for you**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

8. **Determine whether your practice strategies are effective or not**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

9. **Adjust your practice strategies when needed**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

10. **Teach yourself how to master difficult musical sections**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

11. **Use a systematic process for overcoming musical difficulties**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

12. **Track your progress of difficult musical sections**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

13. **Observe your practicing for signs of progress**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

14**. Solve most musical problems you encounter**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

15. **Set short-term goals**
Not at all confident Moderately confident Extremely confident

0 1 2 3 4 5 6 7 8 9 10

16. **Set long-term goals**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

17. **Prioritize your goals**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

18. **Adjust your goals when needed**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

Appendix C

Self-Efficacy for Self-Regulated Learning Scale (Pilot, 2021)

SAMPLE QUESTIONS

This questionnaire will ask you how you feel about accomplishing certain music learning tasks. The following two questions will help you understand how to accurately rate your confidence levels.

Rate your level of confidence RIGHT NOW that you can lift 10 pounds.
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

Rate your level of confidence RIGHT NOW that you can lift 150 pounds.
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

ATTITUDES TOWARDS SPECIFIC MUSICAL PERFORMANCE ACTIVITIES

INSTRUCTIONS

This questionnaire contains 20 questions and should take no more than 5 minutes to complete. Before you begin, please make sure that you have, 1) viewed the video recording of Dance of Four (this week's performance submission piece), and 2) looked over the sheet music of Dance of Four. Both items can be found in this week's course curriculum. Then, please rate your percentage of confidence for each of the following statements, specifically regarding how you will learn and prepare for this week's video submission of Dance of Four.

Rate your confidence level RIGHT NOW that you can...

1. **Set short-term learning goals**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

2. **Solve most musical problems you encounter**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

3**. Identify practice strategies that work well for you**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

4. **Talk yourself through how to master difficult musical sections**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

5. **Talk yourself through how to play expressively**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

6. **Adjust your goals when needed**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

7. **Prioritize your goals**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

8. **Use a systematic process for overcoming musical difficulties**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

9. **Adjust your practice strategies when needed**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

10**. Talk yourself through how to play correct notes**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

11. **Monitor your practicing for signs of progress**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

12. **Talk yourself through how to play rhythms correctly**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

13. **Set specific expressive learning goals (i.e., dynamics, flexible tempo, balance etc.)**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

14. **Accurately determine whether your practice strategies are effective or not**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

15**. Listen carefully to your playing to identify errors**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

16. **Be aware of the positioning of your instrument, body and finger movement while playing**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

17**. Set specific long-term learning goals**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

18. **Monitor your progress towards performing difficult sections of music**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

19. **Set specific technical learning goals (i.e., positioning of the body, guitar, and movement of the fingers)**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

20. **Talk yourself through how to correctly position the guitar, body, hands, and movement of fingers**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

Thank you for completing this questionnaire.

Appendix D

Self-Efficacy for Classical Guitar Performance Rating Scale

Thank you for participating in this study! Your answers are important to me and they may be used to guide the development of future guitar programs. NOTE. This is not a test, and there are no "right" answers. Your answers will remain strictly confidential. To begin with, please place your Research Participant Number in the text box below. Your Research Participant Number can be found in the heading of your "Letter of Information and Consent" (LOI) located in your Beginner Guitar Course DropBox folder

SAMPLE QUESTIONS This questionnaire will ask you how you feel about accomplishing certain music performance related tasks. The following two questions will help you understand how to accurately rate your confidence levels.

1. Rate your level of confidence **RIGHT NOW** that you can lift 10 pounds.

Not at all confident				Moderately confident			Extremely confident			
0	1	2	3	4	5	6	7	8	9	10

2. Rate your level of confidence **RIGHT NOW** that you can lift 150 pounds.

Not at all confident				Moderately confident			Extremely confident			
0	1	2	3	4	5	6	7	8	9	10

ATTITUDES TOWARDS SPECIFIC MUSICAL PERFORMANCE ACTIVITIES

INSTRUCTIONS

This questionnaire contains 12 questions and should take no more than 5 minutes to complete. Please complete the questionnaire directly BEFORE you record this week's secondary performance piece "**DANCE OF THE DOWNWARD SKIP".** Please rate your level of confidence for each of the following statements, specifically regarding how you will perform on your video performance submission.

Rate your level of confidence RIGHT NOW that you can

1 **Perform correct notes**

Not at all confident				Moderately confident			Extremely confident			
0	1	2	3	4	5	6	7	8	9	10

2 **Perform correct rhythms**

Not at all confident				Moderately confident			Extremely confident			
0	1	2	3	4	5	6	7	8	9	10

3 **Perform at the indicated tempo (speed)**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

4 **Perform without hesitations (i.e., slowing down, stopping and restarting)**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

5 **Perform dynamics as indicated**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

6 **Perform tempo changes as indicated ("ritard" and "a tempo")**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

7 **Perform with smoothly connected notes (no spaces between the notes)**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

8 **Perform with a correct balance (melody played louder than the accompaniment)**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

9 **Position your guitar correctly (fretboard at roughly 45 degree angle, guitar positioned reasonably in relation to the torso)**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

10 **Position your plucking hand forearm, hands and fingers correctly (forearm placed mid-way between the wrist and elbow, above the bridge; forearm and hand aligned, wrist elevated from the body of the guitar, fingers curved and in their mid-way position of movement)**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

11 **Perform correct left- and right-hand fingering**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

12. **Perform notes in a clean, clear manner (no buzzes or snapping of strings).**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

Two final questions...

13. I'd like to know about your viewing habits for the peer model whose YouTube link was provided each week in your course DropBox. During an average week, how many times did you watch the peer model video on the following days? Please provide an

answer for **<u>EACH DAY</u>** of the week!

	0 times (1)	1 times (2)	2 times (3)	3 times (4)	4 times (5)	5 or more times (6)
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						
Monday						

14 Choose the answer that most accurately describes how you feel for the following question. "How similar do you think your guitar playing abilities were to the weekly peer video model?" Be sure to **<u>COMPLETE</u>** the follow up question B!

5) 1. A) We were similar, we both played the guitar well. B) Indicate the strength of your answer by placing a number between 0 (very dissimilar) to 10 (very similar) in the text box below. ____

6) 2. A) We were similar, we both struggled with playing the guitar. B) Indicate the strength of your answer by placing a number between 0 (very dissimilar) to 10 (very similar) in the text box below.

   ____

7) 3. A) We were dissimilar, I played the guitar better than the model. B) Indicate the strength of your answer by placing a number between 0 (very similar) to 10 (very dissimilar) in the text box below.

   ____

8) 4. A) We were dissimilar, the model played the guitar better than I. B) Indicate the strength of your answer by placing a number between 0 (very similar) to 10 (very dissimilar) in the text box below.

   ____

Appendix E

Classical Guitar Performance Rating Scale (Feely, 2017)

Please indicate in the table below how strongly you agree or disagree with the following statements. Write the number beside the question.

1) very strongly disagree, 2) strongly disagree, 3) disagree, 4) neutral, 5) agree, 6) strongly agree, 7) Very strongly agree,

1 Performed dynamics as indicated (ie. crescendi, decrescendi, changes in dynamic level)
2 Participant "snapped" the strings often _____
3 Performed with a warm, full-bodied tone _____
4 Performed with an appropriate tempo _____
5 Performed with a steady tempo (not slowing down or speeding up) _____
6 Performed tempo changes where indicated (ritards, accelerandoes) _____
7 Performed correct rhythms _____
8 Performed with regularly reoccurring rhythmic accenting _____
9 Guitar was in in tune _____
10 Performed fluidly and without hesitation _____
11 Backtracked often to correct earlier notes _____
12 Performed correct pitches _____
13 Notes connected in a smooth legato manner _____
14 Notes plucked in a clear articulate manner (consistent weight and volume on each note)_____
15 The participant was seated correctly (shoulders and elbows symetrical, spine aligned)
16 Position of the guitar in relation to the torso is reasonable _____
17 Angle of the fretboard is reasonable (45 degrees) _____
18 Forearm and hand were aligned _____
19 Fingers were curved and in their mid-way position _____
20 Forearm was placed in a reasonable position (mid-way between the wrist and elbow, above the bridge) 21 Forearm and hand were aligned _____
22 Wrist was elevated from the body of the guitar _____
23 Fingers were curved and in their midway position _____

Appendix F

Classical Guitar Performance Rating Scale

Adjudicator ID (initials).

Participant ID (number)

Assessment piece: *Dance of the Downward Skip*

Directions: Please assess each video performance using the following 12 questions. Read the questions and descriptors carefully then chose a number from 0 through 10 that you feel most accurately reflects the student's performance.

1. Performed correct notes

Many incorrect notes — Some incorrect notes — All correct notes

0 1 2 3 4 5 6 7 8 9 10

2. Performed correct rhythms

Performed many rhythms incorrectly — Performed some rhythms incorrectly — Performed all rhythms correctly

0 1 2 3 4 5 6 7 8 9 10

3. Performed at the indicated tempo

Extremely above or below indicated tempo — Somewhat above or below indicated tempo — At the indicated tempo

0 1 2 3 4 5 6 7 8 9 10

4. Performed without hesitations

Performed with many hesitations — Performed with some hesitations — Performed with no hesitations

0 1 2 3 4 5 6 7 8 9 10

5. Performed dynamics as indicated

Performed no indicated dynamics — Performed some indicated dynamics — Performed all indicated dynamics

0 1 2 3 4 5 6 7 8 9 10

6. Performed tempo changes as indicated

Performed no indicated tempo changes — Performed some indicated tempo changes — Performed all indicated tempo changes

0 1 2 3 4 5 6 7 8 9 10

7. Performed with smoothly connected notes (no spaces between the notes)

Few notes were smoothly connected				Some notes were smoothly connected				All notes were smoothly connected		
0	1	2	3	4	5	6	7	8	9	10

8. Performed with a correct balance (melody played louder than the accompaniment)

Performed with an incorrect balance				Performed with somewhat of a correct balance				Performed with a correct balance		
0	1	2	3	4	5	6	7	8	9	10

9. Guitar was positioned correctly (fretboard at roughly 45 degrees angle, guitar positioned reasonably in relation to the torso)

Position was incorrect				Position was somewhat incorrect				Position was mostly correct		
0	1	2	3	4	5	6	7	8	9	10

10. Correct positioning of the plucking hand forearm, hands and fingers ([a] forearm placed mid-way between the wrist and elbow, above the bridge; [b] forearm and hand aligned, [c] wrist elevated from the body of the guitar, [d] fingers curved and in their mid-way position of movement)

Positioning was somewhat incorrect				Positioning was mostly correct				Positioning was correct		
0	1	2	3	4	5	6	7	8	9	10

11. Performed correct (a) fretting- and (b) plucking-hand fingerings

Performed many incorrect fingerings				Performed some incorrect fingerings				Performed all correct fingerings		
0	1	2	3	4	5	6	7	8	9	10

12. Performed notes in a clean, clear, manner (no buzzes, muffled notes or snapping strings)

Performed many muffled or snapped notes				Performed some muffled or snapped notes				Performed no muffled or snapped notes		
0	1	2	3	4	5	6	7	8	9	10

Appendix G

Coping and Mastery Model Video URL Links

Video 1 (week 3)

Piece: Valse Facile, by Andrew Zohn

Pedagogical Focus: Set up and positioning of the body and instrument

Coping Model Video Duration: 3:14 - Video link: https://youtu.be/8PJC35qVfWA

Mastery Model Video Duration: 1:07 - Video link: https://youtu.be/kknjLMba17E

Video 2 (week 4)

Piece: Exercise 13, by Elias Barreiro

Pedagogical Focus: Right- and left-hand fingering

Coping Model Video Duration: 2:51 - Video link: https://youtu.be/zqCziSX0tcE

Mastery Model Video Duration: 0:35 Video link: https://youtu.be/I8vTamhGywU

Video 3 (week 5)

Piece: Simple Dialogue by Shawn Bell

Pedagogical Focus: Dynamics

Coping Model Video Duration: 3:32 - Video link: https://youtu.be/eamj2t42hIU

Mastery Model Video Duration: 0:49 - Video link: https://youtu.be/9VpgQ2xx9L8

Video 4 (week 6)

Piece: Study in a - by Claude Gagnon

Pedagogical Focus: Tone

Coping Model Video Duration: 2:03 - Video link: https://youtu.be/6DXpjTlgiq0

Mastery Model Video Duration: 0:33 - Video link: https://youtu.be/N2QFUk0uqmU

Video 5 (week 7)

Piece: Pim's etude by Andrew Zohn

Pedagogical Focus: Balance

Coping Model Video Duration: 2:14 - Video link: https://youtu.be/rfD3reLuVAk

Mastery Model Video Duration: 0:40 - Video link: https://youtu.be/-oTldhIF4Ag

Video 6 (week 8)

Piece: Prelude No. 9 by Aaron Shearer

Pedagogical Focus: Rhythm

Coping Model Video Duration: 1:49 - Video link: https://youtu.be/0QSTbbW91T4

Mastery Model Video Duration: 0:33 - Video link: https://youtu.be/c6uphw57u3k

Video 7 (week 9)

Piece: On Point by Jeffrey McFadden

Pedagogical Focus: Slurs/legato

Coping Model Video Duration: 2:21 - Video link: https://youtu.be/AUjARtp8gdE

Mastery Model Video Duration: 0:43 - Video link: https://youtu.be/I08qeY3-D5c

Video 8 (week 10)

Piece: Souveneir de Autumn by Simone Iannarelli

Pedagogical Focus: Interpretation/musical effect

Coping Model Video Duration: 2:20 - Video link: https://youtu.be/0Gcur7OYYIc

Mastery Model Video Duration: 1:00 - Video link: https://youtu.be/vaatUhIt3Xc

Appendix H

Coping Model Video Scripts

COPING MODEL VIDEO SCRIPT 1 (WEEK 3)

Piece: Valse Facile, by Andrew Zohn

Focus of video: Technique (positioning of the instrument and body)

Alignment with CGPRS: Students will be assessed weekly on the following technical aspects. We are attempting to model these aspects.

<u>Technique Dimension</u>

Guitar was positioned correctly ([a] angle of the fretboard was reasonable [45 degrees]; [b] position of the guitar in relation to the torso was reasonable)

Correct positioning of the plucking hand forearm, hands and fingers ([a] forearm placed mid-way between the wrist and elbow, above the bridge; [b] forearm and hand aligned, [c] wrist elevated from the body of the guitar, [d] fingers curved and in their mid-way position of movement)

COPING MODEL VIDEO DIRECTIONS AND SCRIPT

Phase 1: Can't do *(roughly 30 seconds…)*

(Sit awkwardly with the guitar)

"I don't think I can hold the guitar like this (Self-Efficacy)

I'm not good at it" (Ability)

(readjust the guitar, play a couple notes)

"It's awkward sitting like this (Task Difficulty),

I just don't like it" (Attitude)

Phase 2: Coping *(between 90-120 seconds)*

"I'm gonna try correcting my technique this week" (Attitude)

(*Model the following position checks*)

Spine aligned

Shoulders symmetrical

(Move guitar up and down in relation to the torso, then…)

Adjust footrest

(place guitar across left leg. Use left hand and check for…)

Tuners at eye height

upper bout below chin)

"I think I'm getting better at this" (Self-Efficacy)

(*Model the following right-hand position checks)*

Straight line through bridge to forearm

Forearm at midway position on upper bout of guitar

alignment of forearm and hand

wrist elevation

curved fingers

"I**t's getting easier to hold the guitar this way** (Ability)"

(Model the following left-hand position checks)

left hand alignment

mid-way position of fingers

(*Play the first 8 measures of Valse Facile sort of slowly & without dynamics*)

"Playing this way is really not that hard" (Task Difficulty)

Phase 3: Mastery (*Roughly between 45-60 seconds)*

(While setting up the positioning of the guitar say…)

"I can play this piece through now holding the guitar the right way (Self-efficacy)

I've actually gotten good at it" (Ability)

(Play piece as written. Afterwards say…)

"I like holding the guitar this way (Attitude)

Its actually easy" (Task Difficulty) END

COPING MODEL VIDEO SCRIPT 2 (WEEK 4)

Piece: Exercise 13, by Elias Barreiro

Focus of Script: Technique: correct right-hand fingering and string crossing

Alignment with CGPRS: Students will be assessed on correct alternation of the plucking hand fingering. We are attempting to model this aspect.

Technique Dimension

Performed correct (a) fretting- and (b) plucking-hand fingerings

COPING MODEL VIDEO DIRECTIONS AND SCRIPT

Phase 1: Can't do *(roughly 30 seconds…)*

(Sit with the guitar in poor positioning add say)

"I'm not sure I can alternate with my right-hand fingers (Self-Efficacy), **It's difficult"** (Task Difficulty)

(Play first 5 notes a couple times while messing up)

I'm no good at it" (ability) "I don't like alternating (attitude)

Phase 2: Coping *(between 90-120 seconds)*

(Briefly check position of guitar and body then say)

"I'm gonna try my best to play with correctly alternation" (Attitude)

(Say "I m I m a" while playing first 5 notes without dynamics. do this twice then say)

"I think I'm getting better at it" (Self-efficacy)

(Say "m I m I m" while playing the descending 5 note section without dynamics then say)

"**it's getting easier alternate correctly (Ability)"**

(*Play the first 8 measures of ex. 13 slowly & without dynamics then say*)

"alternation's really not that hard" (Task Difficulty)

Phase 3: Mastery (*Roughly between 45-60 seconds)*

(Quickly check the set up and positioning of the guitar then say…)

"I can play with correct fingering now (Self-Efficacy)

I'm good at it" (Ability)

(Play piece as written, then say)

"I like alternating (Attitude)

Its actually easy" (Task Difficulty) END…

COPING MODEL VIDEO SCRIPT 3 (WEEK 5)

Piece: Simple Dialog by Shawn Bell

Focus of video: Dynamics

Alignment with CGPRS: Students will be assessed weekly on the following expressive aspects. We are attempting to model these aspects for students to learn.

<u>Interpretation/musical effect</u>

Performed dynamics (volume level) as indicated.

COPING MODEL VIDEO DIRECTIONS AND SCRIPT

Phase 1: Can't do *(roughly 30 seconds…)*

(Sit with the guitar in poor positioning. Look at the score and pretend to be surprised by all the dynamics markings. Say…)

"Ohhh……I'm not sure I can play all these dynamics (Self-Efficacy),

They're difficult" (Task Difficulty)

(Play strings 5 and 1 open [Similar to the first few bares but without frets] while messing up.)

"I suck at playing dynamics" (Ability),

I wish we didn't have to include them (Attitude).

Phase 2: Coping *(between 90-120 seconds)*

(Briefly check position of guitar and body then say)

"I'm gonna work hard at playing just the dynamics from bar 9" (Attitude)

(Say "Forte" - play string 5 then open string 1)
(Say "Messo Forte" - play string 5 then open string 1)
(say "Mezzo Piano" - play string 5 then open string 1)
(say "Piano" - play string 5 then open string 1)

(Correct yourself on the video if dynamics do not come out the way you want them to. Then say..)

"**I'm getting better at it** (Ability)!**"**

"I think I can play the dynamics and the notes together now" (Self-Efficacy)

(Play measures 8-16 slowly & with dynamics. Then say…)

"Dynamics really aren't that tough" (Task Difficulty)

Phase 3: Mastery (*Roughly between 45-60 seconds)*

(Quickly check the set up and positioning of the guitar then say…)

"I can play all the correct dynamics now (Self-Efficacy),

I've gotten good at them" (Ability)

(Play piece as written, then say)

"I like playing with dynamics (Attitude)**,**

"They're no problem now" (Task Difficulty) END…

COPING MODEL VIDEO SCRIPT 4 (WEEK 6)

Piece: Study in a - by Claude Gagnon

Focus of video: Tone

Alignment with CGPRS: Students will be assessed weekly on the following tonal related aspects. We are attempting to model these aspects for students to learn.

<u>Tone</u>

Performed notes in a clean, clear, manner (no buzzes or snapping of strings)

<u>Technique</u>

Correct positioning of the plucking hand forearm, hands and fingers ([a] forearm placed mid-way between the wrist and elbow, above the bridge; [b] forearm and hand aligned, [c] wrist elevated from the body of the guitar, [d] fingers curved and in their mid-way position of movement)

COPING MODEL VIDEO DIRECTIONS AND SCRIPT

Phase 1: Can't do *(roughly 30 seconds…)*

(Sit in a proper position but deviate the wrist when playing so that the nails have a parallel attack to the strings. Play the open strings 1&2 a couple times with poor tone. Notice the poor tone, look at right hand wrist and try to correct it then say)

"It's hard to get a warm tone when playing two notes at the same time" (Task Difficulty)

"I can't keep my wrist straight" (Ability)

"I don't think I'll be able to get this by the end of the week" (Self-Efficacy)

"I need a break*"* *(Attitude)*

Phase 2: Coping *(between 90-120 seconds)*

Position yourself before a mirror. Look in the mirror at your plucking hand while playing and say…)

"Keeping my wrist straight and playing sideways, along the string, is much easier using a mirror" (Ability)

"It's not as difficult" (Task Difficulty)

I'm pretty sure I can play with good tone now" (Self-efficacy)

Play first 4 measures slowly while focusing on the right hand (perhaps look at the right hand)

"I think I got this" (Attitude)

Phase 3: Mastery (*Roughly between 45-60 seconds)*

(Check the set up right hand wrist then say…)

"I can keep my wrist straight now" (Ability),

"Which gives me a really warm tone" (Self-efficacy)

"it was tough but not now" (Task difficulty) *(Play piece as written, then say)*

"Nice!" (Attitude)

END…

COPING MODEL VIDEO SCRIPT 5 (Week 7)

Piece: Pim's etude by Andrew Zohn

Focus of video: Balance

Alignment with CGPRS: Students will be assessed weekly on the balance between the bass melody and im arpeggio.

<u>Interpretation/musical effect</u>

Performed with a correct balance (melody played louder than the accompaniment)

COPING MODEL VIDEO DIRECTIONS AND SCRIPT

Phase 1: Can't do *(roughly 30 seconds…)*

(Play piece with improper balance, i.e., accompaniment played the same dynamic level as the bass melody)

"Playing the bass notes loud and the high notes quiet is tough (Task Difficulty),

"It's awkward for me" (Ability),

"I don't think I'll be able to get it" (Self-Efficacy),

"I wish I could just play all the notes at the same volume" (Attitude)

Phase 2: Coping (between 90-120 seconds)

"I'm gonna try hard to play with different volume levels" (Attitude)

(Play bass notes alone and say)

"Playing the bass part alone, then adding the upper notes, makes it easier to balance the parts" (Ability),

"I think I'm getting better at it" (Self-efficacy)

(Play first phrase as written)

"it's getting easier" (Task Difficulty)

Phase 3: Mastery (*Roughly between 45-60 seconds)*

(Say the following before playing)

Playing the bass notes loud and the top notes quiet is simple (Ability)

“I can do it now.” (Self-efficacy)

“it’s no problem” (Task difficulty)

(Play piece as written, then say)

Playing the guitar is more interesting when the parts are balanced correctly” (Attitude)

COPING MODEL VIDEO SCRIPT 6 (WEEK 8)

Piece: Prelude No. 9 by Aaron Shearer

Focus of video: Arpeggios

Alignment with CGPRS: Students will be assessed weekly on the following rhythmic aspects related to the performance of arpeggios. We are attempting to model these aspects for students to learn.

Rhythm/tempo

Performed correct rhythms

Performed with a reasonable tempo

Performed smoothly and without hesitations

COPING MODEL VIDEO DIRECTIONS AND SCRIPT

Phase 1: Can't do *(roughly 30 seconds…)*

(Scan the sheet music and say…)

"hmmm. I don't like arpeggios" (Attitude)

"They're tough" (TD)

I'm not good at them" (Ability)

"I doubt I can play this" (SE) *(Play a short selection)*

Phase 2: Coping *(between 90-120 seconds)*

"I'm gonna try my best…" (Attitude)

"I'm gonna work hard" (Ability),

I think I can get it" (Self-Efficacy)

(Play a short excerpt)

"yeah, it's getting easier" (Task Difficulty)

Phase 3: Mastery (*Roughly between 45-60 seconds)*

(Smile and say…)

“I can play this piece” (Self-Efficacy),

it’s easy” (Task Difficulty)

(After playing say…)

“I like this piece, it’s cool (Attitude)

and I’m good at it” (Ability)

COPING MODEL VIDEO SCRIPT 7 (WEEK 9)

Piece: On Point by Jeffrey McFadden

Focus of video: Rhythmic accenting and balance

Alignment with CGPRS: Students will be assessed weekly on the following rhythmic and expressive aspects. We are attempting to model these aspects for students to learn.

<u>Rhythm/tempo</u>

Performed correct rhythms

<u>Interpretation/musical effect</u>

Performed with a correct balance (melody played louder than the accompaniment)

COPING MODEL VIDEO DIRECTIONS AND SCRIPT

Phase 1: Can't do *(roughly 30 seconds…)*

(Scan the sheet music, appear perplexed, then say…)

"Accenting's tough" (Task Difficulty)

"I'm not sure I can do it" (Self-Efficacy)

(Play a short excerpt then say)

"I just don't like accenting" (Attitude)

I'm not good at it (Ability)

Phase 2: Coping *(between 90-120 seconds)*

(Get in playing position then say…)

"I'm gonna hard to accenting the top note" (Attitude)

(Play a short excerpt then say)

"There, I think that's better" (Self-efficacy)

Now I'm gonna try accenting the bass note in the second section

(Play a short excerpt then say…)

"yeah, that's getting easier now (Ability)"

“it’s not so tough after all” (Task Difficulty)

Phase 3: Mastery (*Roughly between 45-60 seconds)*

(Get in playing position then say…)

“I can play this piece” (Self-Efficacy),

“**it’s easy”** (Task Difficulty)

(play the piece straight through then say…)

“this piece is cool (Attitude),

I’m good at it” (Ability)

COPING MODEL VIDEO SCRIPT 8 (WEEK 10)

Piece: Souveneir de Autumn by Simone Iannarelli

Focus of video: Slurs

Alignment with CGPRS: Students will be assessed weekly on the legato note connection during slurs. We are attempting to model these aspects for students to learn.

Interpretation/musical effect

Performed smoothly, without gaps between notes

Rhythm/tempo

Performed smoothly and without hesitations

COPING MODEL VIDEO DIRECTIONS AND SCRIPT

Phase 1: Can't do *(roughly 30 seconds…)*

(Take a moment to scan the score, then say)

Oh, there's a slur in bar 4 - their tricky, (Task Difficulty)

"I'm not sure I can do them (Self-Efficacy),

(Play measure 4 and fail to play the slur smoothly a couple times, then say…)

"slurs suck! (Attitude)

I'm no good at them." (Ability)

Phase 2: Coping *(between 90-120 seconds)*

(Get in playing position, appear determined, then say…)

"Alright…I'm gonna give these slurs my best shot" (Attitude)

(work the slurs in bar sour a couple times then say)

"I think their coming along" (Self-efficacy).

Let's try the others in measure 10

(play slurs a couple times, better this time)

"Yeah, I'm think I'm getting better them" (Ability)

They're easier today" (Task Difficulty)

Phase 3: Mastery (*Roughly between 45-60 seconds)*

(Quickly check the set up and positioning of the guitar then say)

slurs are easy now…" (Task difficulty)

"I can play them well (Self-efficacy)

(Play piece as written, then say)

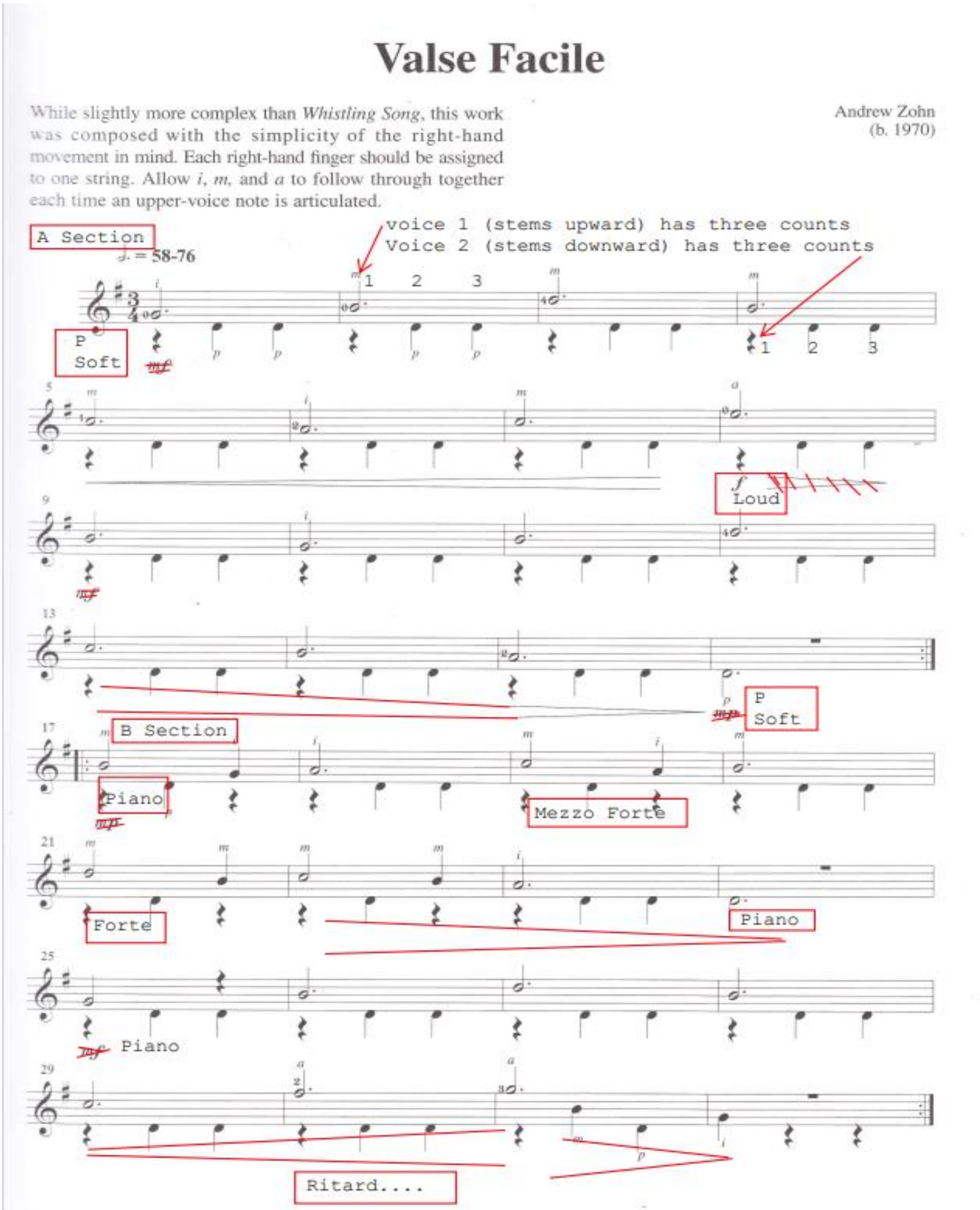
"Nailed it! (Attitude)

I'm good at slurs" (Ability)

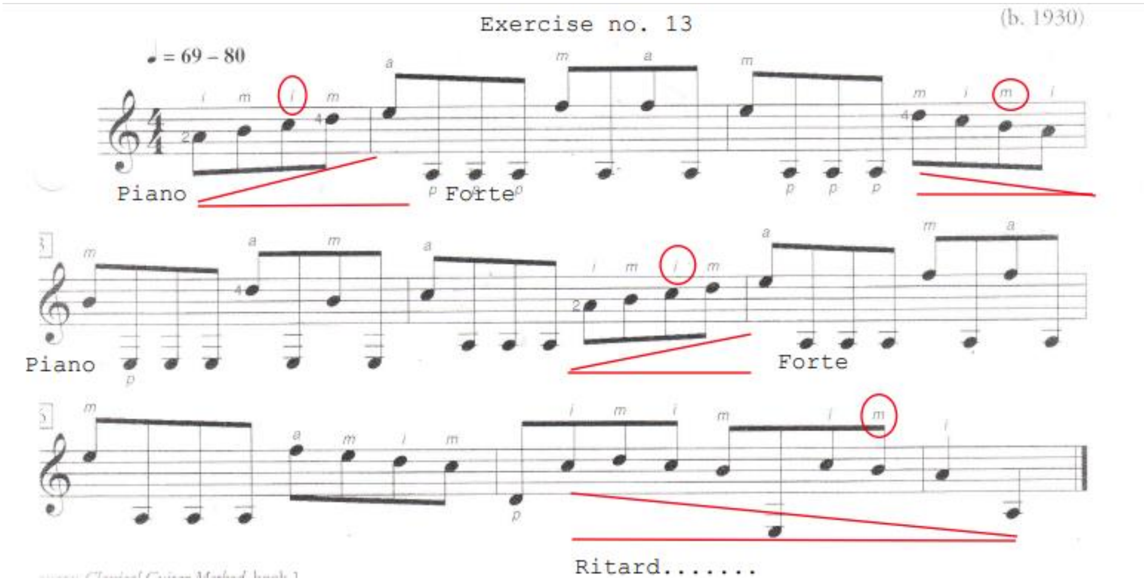
Appendix I

Weekly Performance Repertoire

Video 1 Performance Repertoire (Week 3); Piece: Valse Facile, by Andrew Zohn

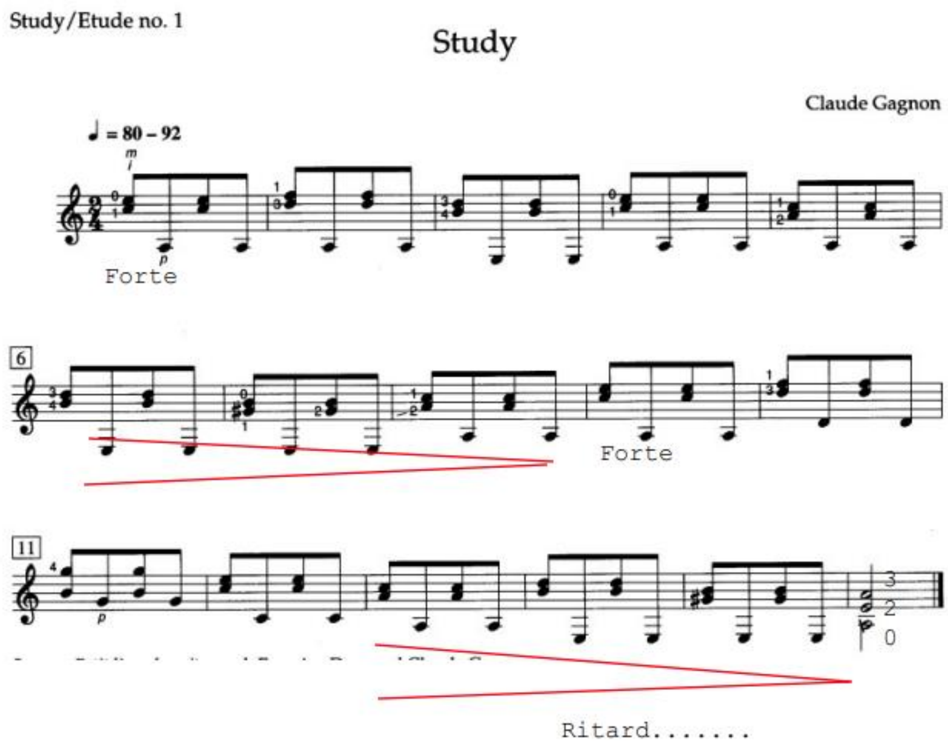


Video 2 Performance Repertoire (Week 4); Piece: Exercise 13, by Elias Barreiro

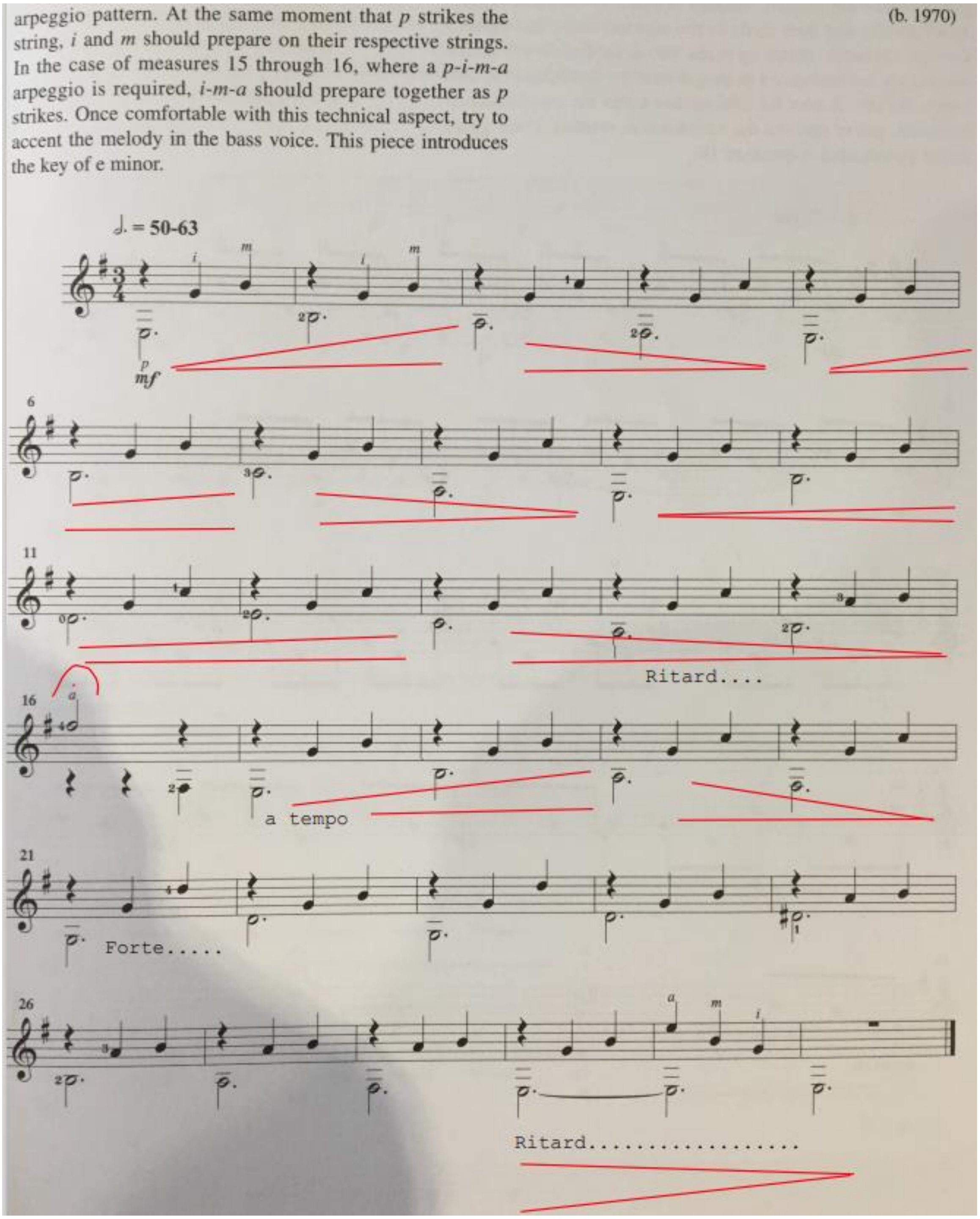


Video 3 Performance Repertoire (Week 5) Piece: Simple Dialogue by Shawn Bell

Video 4 Performance Repertoire (Week 6); Piece: Study in a - by Claude Gagnon

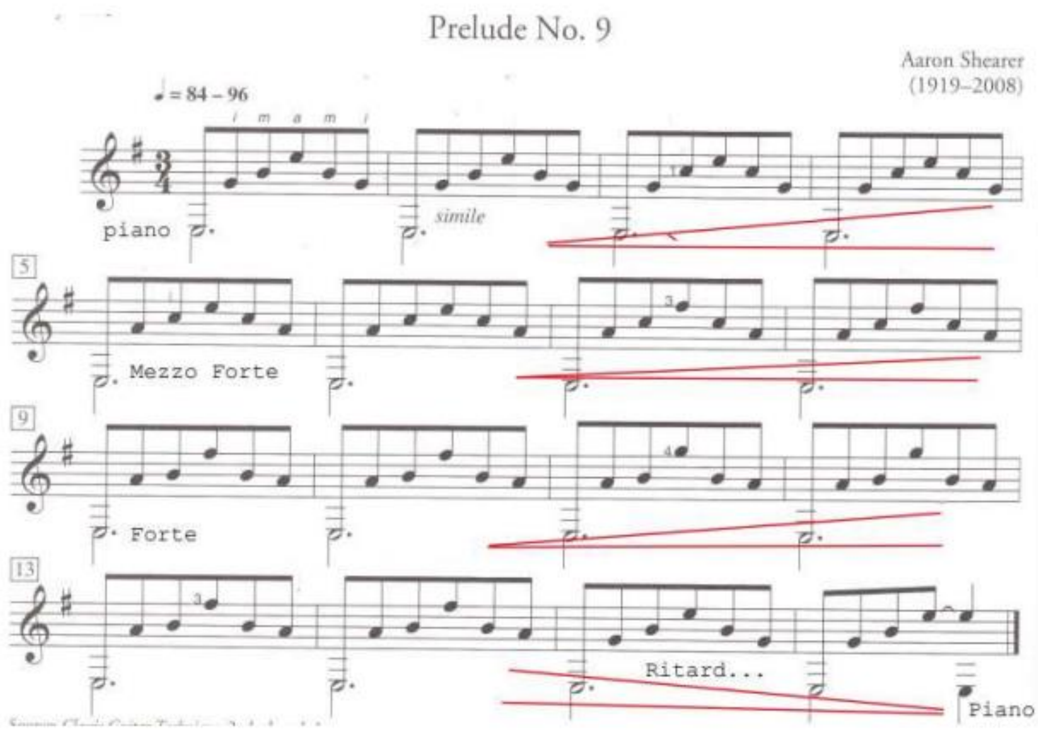


Video 5 Performance Repertoire (Week 7); Piece: Pim's etude by Andrew Zohn

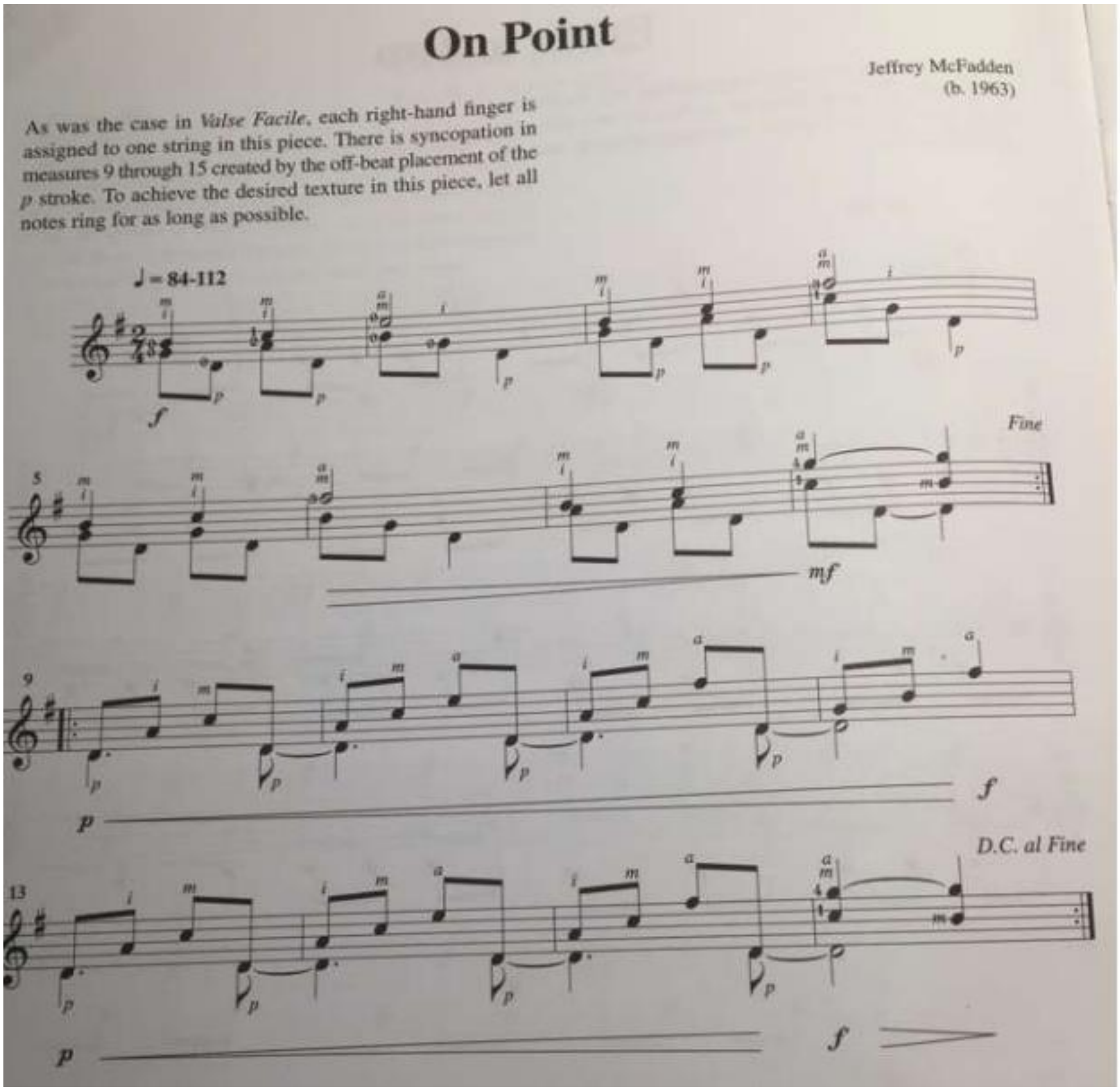


arpeggio pattern. At the same moment that *p* strikes the string, *i* and *m* should prepare on their respective strings. In the case of measures 15 through 16, where a *p-i-m-a* arpeggio is required, *i-m-a* should prepare together as *p* strikes. Once comfortable with this technical aspect, try to accent the melody in the bass voice. This piece introduces the key of e minor.

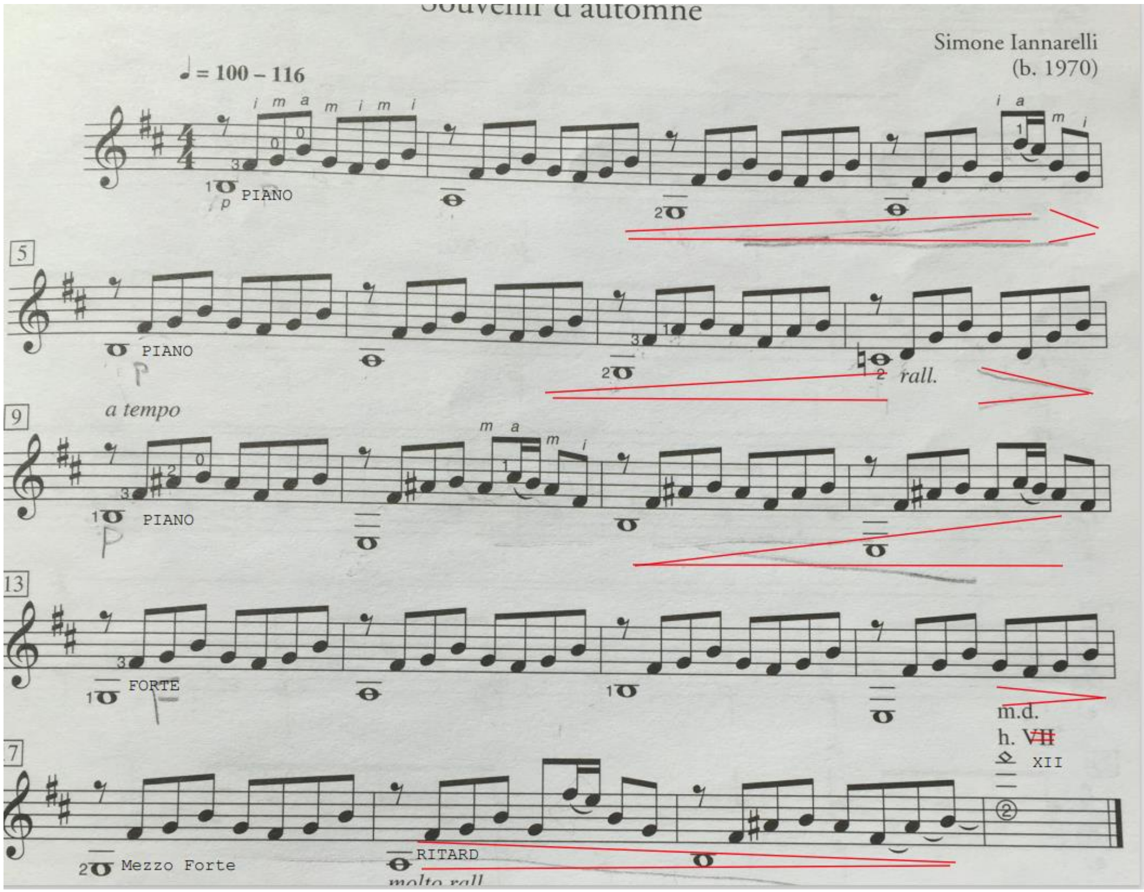
Video 6 Performance Repertoire (Week 8); Piece: Prelude No. 9 by Aaron Shearer



Video 7 Performance Repertoire (Week 9); Piece: On Point by Jeffrey McFadden

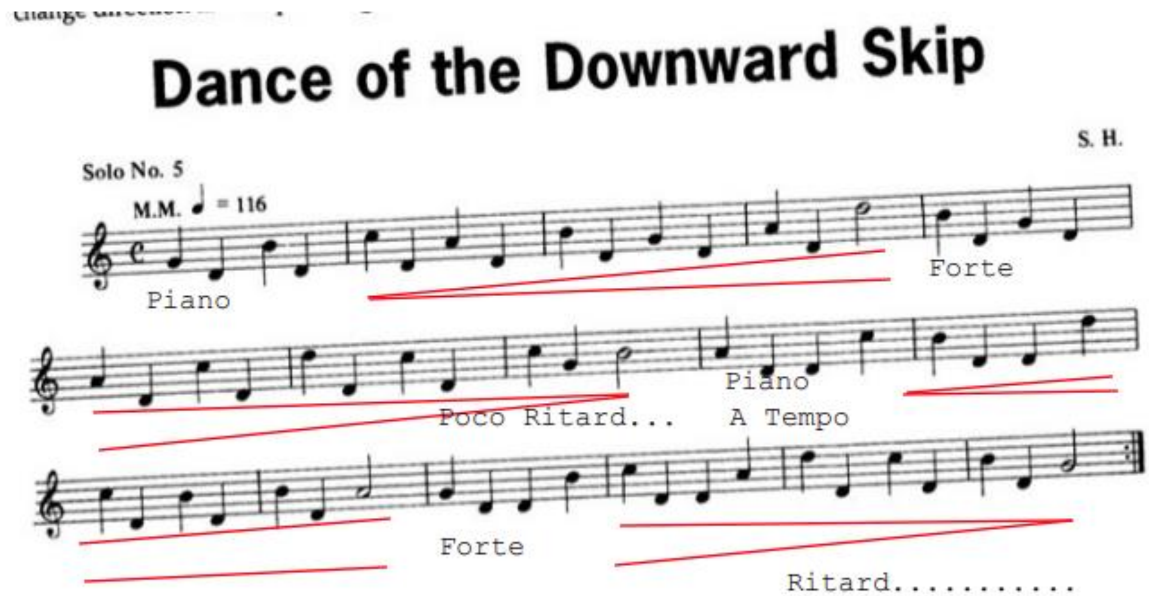


Video 8 Performance Repertoire (Week 10); Piece: Souveneir de Autumn by Simone Iannarelli



Appendix J

Pre and Post Dependent Variable Performance Achievement Piece



Appendix K

Self-Efficacy for Self-Regulated Learning Scale (Pilot, 2021)

SAMPLE QUESTIONS

This questionnaire will ask you how you feel about accomplishing certain music learning tasks. The following two questions will help you understand how to accurately rate your confidence levels.

Rate your level of confidence RIGHT NOW that you can lift 10 pounds.
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

Rate your level of confidence RIGHT NOW that you can lift 150 pounds.
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

ATTITUDES TOWARDS SPECIFIC MUSICAL PERFORMANCE ACTIVITIES

INSTRUCTIONS

This questionnaire contains 20 questions and should take no more than 5 minutes to complete. Before you begin, please make sure that you have, 1) viewed the video recording of Dance of Four (this week's performance submission piece), and 2) looked over the sheet music of Dance of Four. Both items can be found in this week's course curriculum. Then, please rate your percentage of confidence for each of the following statements, specifically regarding how you will learn and prepare for this week's video submission of Dance of Four.

Rate your confidence level RIGHT NOW that you can...

1. **Set short-term learning goals**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

2. **Solve most musical problems you encounter**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

3**. Identify practice strategies that work well for you**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

4. **Talk yourself through how to master difficult musical sections**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

5. **Talk yourself through how to play expressively**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

6. **Adjust your goals when needed**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

7. **Prioritize your goals**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

8. **Use a systematic process for overcoming musical difficulties**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

9. **Adjust your practice strategies when needed**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

10**. Talk yourself through how to play correct notes**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

11. **Monitor your practicing for signs of progress**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

12. **Talk yourself through how to play rhythms correctly**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

13. **Set specific expressive learning goals (i.e., dynamics, flexible tempo, balance etc.)**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

14. **Accurately determine whether your practice strategies are effective or not**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

15**. Listen carefully to your playing to identify errors**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

16. **Be aware of the positioning of your instrument, body and finger movement while playing**
Not at all confident Moderately confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

17**. Set specific long-term learning goals**

Not at all confident Moderately confident Extremely confident

0 1 2 3 4 5 6 7 8 9 10

18. **Monitor your progress towards performing difficult sections of music**

Not at all confident Moderately confident Extremely confident

0 1 2 3 4 5 6 7 8 9 10

19. **Set specific technical learning goals (i.e., positioning of the body, guitar, and movement of the fingers)**

Not at all confident Moderately confident Extremely confident

0 1 2 3 4 5 6 7 8 9 10

20. **Talk yourself through how to correctly position the guitar, body, hands, and movement of fingers**

Not at all confident Moderately confident Extremely confident

0 1 2 3 4 5 6 7 8 9 10

Thank you for completing this questionnaire.

Appendix L
Self-Efficacy for Classical Guitar Performance Rating Scale (2021, Pilot)

INTRODUCTION

Thank you for participating in this study! Your answers are important to me and they may be used to guide the development of future guitar courses. NOTE: This is not a test, and there are no "right" answers. Please be honest about how you feel. Your answers will remain strictly confidential.

SAMPLE QUESTIONS

This questionnaire will ask you how you feel about accomplishing certain music performance related tasks. The following two questions will help you understand how to accurately rate your confidence levels.

Rate your level of confidence RIGHT NOW that you can lift 10 pounds.

Not at all confident Extremely confident

0 1 2 3 4 5 6 7 8 9 10

Rate your level of confidence RIGHT NOW that you can lift 150 pounds.

Not at all confident Extremely confident

0 1 2 3 4 5 6 7 8 9 10

ATTITUDES TOWARDS SPECIFIC MUSICAL PERFORMANCE ACTIVITIES

INSTRUCTIONS

This questionnaire contains 20 questions and should take no more than 5 minutes to complete. Please complete this questionnaire directly BEFORE you record your video performance submission of Dance of Four. Please rate your percentage of confidence for each of the following statements, specifically regarding how you will perform on the video performance submission.

Rate your level of confidence RIGHT NOW that you can…

1. Tune the guitar properly.

Not at all confident Extremely confident

0 1 2 3 4 5 6 7 8 9 10

2. Perform notes in a clean, clear manner (no buzzes or snapping of strings).

Not at all confident Extremely confident

0 1 2 3 4 5 6 7 8 9 10

3. Perform correct rhythms
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

4. Perform notes with a warm, pleasing sound (not harsh)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

5. Perform with a correct balance (melody played louder than the accompaniment)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

6. Position your body correctly (shoulders and elbows symmetrical, spine aligned)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

7. Perform with a strong rhythmic pulse
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

8. Position your guitar correctly (fretboard at roughly 45 degree angle, guitar positioned reasonably in relation to the torso)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

9. Perform correct notes
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

10. Perform correct left- and right-hand fingering
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

11. Perform without hesitations (stopping and restarting)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

12. Position your fretting hand forearm, hands and fingers correctly (forearm and hand aligned; fingers curved and in their mid-way position)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

13. Perform dynamics as indicated
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

14. Perform with a steady tempo (not slowing down or speeding up)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

15. Perform at a reasonable tempo (speed)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

16. Perform with smoothly connected notes (no spaces between the notes)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

17. Perform tempo changes as indicated (slowing down or speeding up)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

18. Position your plucking hand forearm, hands and fingers correctly (forearm placed mid-way between the wrist and elbow, above the bridge; forearm and hand aligned, wrist elevated from the body of the guitar, fingers curved and in their mid-way position of movement)
Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

Two final questions...

19 Approximately how many times did you watch the video recorded model perform Dance of Four this week? ______________

20 How similar are your guitar playing abilities to the video model who performed this piece?

Not at all confident Extremely confident
0 1 2 3 4 5 6 7 8 9 10

Appendix M

Classical Guitar Performance Rating Scale (2021, Pilot)

Adjudicator ID (initials) __________ Participant ID (number)_________________

Assessment piece:

Dance of four ___________ Valse Facile ___________

Directions: Please indicate in the table below how strongly you agree or disagree with the following statements

Q1. **Body was positioned correctly ([a] shoulders and elbows symmetrical, [b] spine aligned)**

Not at all correct Moderately correct All Correct

0 1 2 3 4 5 6 7 8 9 10

Q. 2 **Guitar was positioned correctly ([a] angle of the fretboard was reasonable [45 degrees]; [b] position of the guitar in relation to the torso was reasonable**

Not at all correct Moderately correct All Correct

0 1 2 3 4 5 6 7 8 9 10

Q. 3 **Correct positioning of the plucking hand forearm, hands and fingers ([a] forearm placed mid-way between the wrist and elbow, above the bridge; [b] forearm and hand aligned, [c] wrist elevated from the body of the guitar [d] fingers curved and in their mid-way position of movement)**

Not at all correct Moderately correct All Correct

0 1 2 3 4 5 6 7 8 9 10

Q. 4 **Correct positioning of the fretting hand forearm, hands and fingers ([a] forearm and hand aligned; [b] fingers curved and in their mid-way position.**

Not at all correct Moderately correct All Correct

0 1 2 3 4 5 6 7 8 9 10

Q. 5 **Performed correct (a) fretting- and (b) plucking-hand fingerings.**

Not at all correct Moderately correct All Correct

0 1 2 3 4 5 6 7 8 9 10

Q. 6 **Guitar was in tune**

Not at all correct Moderately correct All Correct

0 1 2 3 4 5 6 7 8 9 10

Q. 7 **Performed correct pitches**

Not at all correct Moderately correct All Correct

0 1 2 3 4 5 6 7 8 9 10

Q. 8 **Performed correct rhythms**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 9 **Performed with a reasonable tempo**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 10 **Performed with a steady tempo (not slowing down or speeding up)**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 11 **Performed with a strong rhythmic pulse**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 12 **Performed smoothly and without hesitation (stopping and restarting)**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 13 **Performed tempo changes as indicated (ritards, accelerandos)**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 14 **Performed dynamics (volume level) as indicated**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 15 **Performed smoothly, without gaps between notes**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 16 **Performed with a correct balance (melody played louder than the accompaniment)**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 17 **Performed with a pleasing tone (a warm sound, not harsh)**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

Q. 18 **Performed notes in a clean, clear, manner (no buzzes or snapping of strings)**
Not at all correct Moderately correct All Correct
0 1 2 3 4 5 6 7 8 9 10

CURRICULUM VITAE | PATRICK FEELY

Education

PhD	Music Education, University of Western Ontario, London, ON, Canada *Minor*: Music Cognition	2023
MM	Music Education, University of Western Ontario, London, ON, Canada	2017
ARCT	Guitar Performance, Royal Conservatory of Music, Toronto, ON, Canada	2011
ARCT	Guitar Pedagogy, Royal Conservatory of Music, Toronto, ON, Canada	2006
MM	Guitar Performance, University of Toronto, Toronto, ON, Canada *Instrument:* Classical Guitar	2003
BM	McMaster University, Hamilton, ON, Canada *Major Instrument*: Classical Guitar	2000
M. Dip	Mohawk College of Applied Arts, Hamilton ON, Canada *Major Instrument:* Jazz Guitar	1987

Teaching Experience

Adjunct Instructor, McMaster University, School of the Arts

Psychology of Music Course	2023
Studio instructor (Classical Guitar)	2007-2021
Guitar Orchestra Conductor	2012-2016
Chamber Ensemble Director (Guitar Trio and Quartets)	2014-2016

Adjunct Instructor, University of Western Ontario, Don Wright Faculty of Music

Beginner Guitar Course	2017-2023
Guitar Methods Course	2016-2017
Psychology, Learning & Music Course (Teaching Assistant)	2019-2021

Private Instructor, Director of Guitar Orchestras, Hamilton Suzuki School of Music	2015-2016
Guest Conductor, University of Toronto, Undergraduate Guitar Orchestra	2013-2014
Community Guitar Orchestras Conductor, Guitar Society of Brantford	2011- 2023
Director of Guitar Orchestras & Private Instructor, Braemar House Private School, Brantford, Grades 7 & 8	2002-2012
Music Teacher (Guitar, History, Theory) and Director of Guitar Orchestras, Brantford Christian Collegiate, Grades 9 through 12	2003-2006

Adjunct Instructor, Mohawk College, Brantford, ON, Canada

Director of Popular Music Ensemble	1986-1988
Music Theory	1986-1988

Private Lesson Instructor, Guitar	1986-2023

Research Assistant

Diminishing Returns: Music Education Labour and Qualification in Ontario *2018-2019*
Supervisor, Dr. Patrick Schmidt. Responsible for the creation of an online survey, data analysis, creation of descriptive statistics, and written report.
University of Western Ontario

Enrolment Trends in Canadian University Music Programs 2016-2017
Supervisor, Dr. Betty Anne Younker. Duties include data mining of government documents and creating descriptive statistics.
University of Western Ontario

Musical Learning Across the Lifespan 2015
Supervisors, Dr. Katie Overy and Dr. Jonathan De Sousa. Duties included all aspects of organizing the first "International Music Learning Across the Lifespan Conference" at the University of Western Ontario.

Dissertation and Master's Thesis

Feely, Patrick K. The effect of coping verses mastery models on the level of self-efficacy for self-regulated music learning, self-efficacy for classical guitar playing and guitar achievement for undergraduate non-music majors.

Feely, Patrick K., The Effects of Video Recording on the Level of Expertise and Self-Regulated Learning Ability of Adults in a Beginner Classical Guitar Class (2017). University of Western Ontario. London, Ontario, Canada.

Research Publications

Feely, Patrick, K. Has Classroom Guitar Education Come of Age? A Review of the GuitarCurriculum.com Method. *The Recorder, Volume LX No. 3. 2018*

Juried Papers

"I've Given Up Trying to Find a Quiet Spot, the Kids Just Follow Me There": The Self-Regulated Learning Challenges of Adult Beginner Guitarists. The 35th International Society for Music Education (ISME) World Conference: Paper presentation in July 2022, Brisbane, Australia

Diminishing Returns: Policy, Labour, and the Curtailing of Music Education (accepted) American Educational Research Association conference, April 2020, San Francisco, California. (Canceled due to Covid)

How to Create and Sustain Large Guitar Orchestra Programs.
The Ontario Music Education Association (OMEA) OPUS 100, November 2019. Classical Guitar workshop presented in Toronto

The Effects of Video Recording on the Level of Expertise and Self-Regulated Learning Ability of Adults in a Beginner Classical Guitar Class: A Mixed Methods Study. The 21st Century Guitar: An international interdisciplinary conference on 21st century guitar composition, performance and pedagogy at The University of Ottawa, Ontario, Canada. Paper presentation in August 2019

The Development of Measures of Achievement and Self-Regulation for Assessment of Adults in a Beginner Classical Guitar Class. The 7th International Symposium on Assessment in Music Education (ISAME), Honoring culture, diversity, and practice. Paper presented March 2019, Gainesville, FL.

The Effects of Video Recording on the Level of Expertise and Self-Regulated Learning Ability of Adults in a Beginner Classical Guitar Class. Desert Skies Symposium for Research in Music Education, School of Music in the Herberger Institute for Design and the Arts at Arizona State University. Paper presentation in February 2019.

Diminishing Returns: Music Education Labour and Qualification in Ontario Context. The Ontario Music Educators Association (OMEA) Conference, Counterpoint October 2018, Hamilton Ontario. Two focus groups, data collection, and transcribing of recorded conversations with Patrick Schmidt and Jashen Edwards.

I am the Regime: A Foucauldian Analysis of Power Within the Private Guitar Studio. The Progressive Methods in Popular Music Education Conference/Symposium. Paper presented at the University of Western Ontario, London, Ontario, Canada, June 2018.

Guitar Festival Adjudication, Juries, and Masterclass Clinician

Masterclass, Indian Institute of Science Education and Research, Pune, India	2019
Orillia Kiwanis Music Festival, ON, CA	2019
Owen Sound Kiwanis Music Festival, ON, CA	2017
Jury Member, Developing Artist Grant, The Hnatyshyn Foundation	2016-2020
Kiwanis Music Festival of London, ON, CA	2015, 2021
Newmarket Lions Club Music Festival, ON, CA	2015, 2016
Montreal International Guitar Festival, QC, CA	2015
Lippert School of Music, Toronto, ON, CA	2014
Jury Member, Graduate and Undergraduate Performance Assessments,	2014, 2018
University of Toronto, ON, CA	2021
Stratford Kiwanis Festival of the Performing Arts, ON, CA	2013, 2014
North York Music Festival, ON, CA	2013, 2016, 2018, 2020
Rotary Burlington Music Festival, ON, CA	2012, 2016
American Music Guild Music Festival, Toronto, ON, CA	2012, 2013
Guelph Kiwanis Music Festival, ON, CA	2012, 2015
North Island Festival of Performing Arts, Courtenay, BC, CA	2012
St. Thomas Kiwanis Music Festival, ON, CA	2012
Masterclass, Courtenay B.C.	2012
Walkerton Rotary Music Festival, ON, CA	2010
Midland YMCA Music Festival, ON, CA	2010
Barrie Kiwanis Music Festival, ON, CA	2009, 2014, 2017
Toronto Kiwanis Music Festival, ON, CA	2008, 2014, 2015
Masterclass, Ambrosia University, Calgary	2010, 2012
Masterclass, University of Calgary, AB, CA	2010
Kitchener-Waterloo Kiwanis Music Festival, ON, CA	2007
Norfolk Music Festival, ON, CA	2006

Guitar Examiner, Royal Conservatory of Music, Toronto
Preliminary through ARCT levels

Surrey, BC, CA	2019
Bloomington IL, USA	2019
New York, NY, US	2019
San Diego, CA	2018
Montreal, QC, CA	2016
Ottawa ON, CA	2016
Mountain View, CA, US	2016, 2018
Burnaby, BC, CA	2016, 2019
Oakville, ON, CA	2015
Toronto, ON, CA	2015, 2018, 2021, 2023
Kitchener, ON, CA	2015
London, ON, CA	2015
Brampton ON, CA	2015
Calgary, AB, CA	2015, 2016
Vancouver, BC	2015, 2016, 2019
Richmond, BC	2015, 2019
Scarborough, ON, CA	2015, 2018
Baltimore, MD, US	2015

Guitar Examiner Trainer, Royal Conservatory of Music
Mentored New Guitar Examiners

Toronto, ON, CA	2016
Mountain View, CA, US	2016
Baltimore MD, US	2015

Classical Guitar Performer – Guest Soloist (Selected Performances)

Fantasía para un Gentilhombre, Joaquin Rodrigo; Brantford Chambers Players Orchestra
Mandolin Concerto in C major, RV 425, Antonio Vivaldi; Grand River Trio:
Concerto for Lute in D Major RV 93, Antonio Vivaldi; Brantford Symphony Orchestra
Concerto del Sur, Manuel Ponce; McMaster University Orchestra

Chamber Music
East West Guitar Duo (Selected Performances)

Visiting Artists Series, McMaster University, Hamilton, ON, CA
Mt Royal University, Leacock Theatre, AB, CA
Guitar Society of Brantford, Art Gallery of Brantford, ON, CA
North Island Performing Arts Festival, Courtenay, BC

Duo Feely

VIA Rail Canada, On-Board Artists, Toronto to Vancouver, Montreal to Halifax

Solo Guitar (Selected Performances)

Sauble Beach Guitar Festival
Visiting Artists Series at McMaster University
Friends of Guitar Festival in Brantford
Lecture Recital, Self-Regulated Learning: Music and Beyond, True School of Music, Mumbai, India
Lecture Recital, Self-Regulated Learning: Music and Beyond, The Indian Institute of Science Education and Research, Pune

Professional Service and Contributions

The Guitar Society of Brantford 2010-2023
Founder and Artistic Director

- Hired performers for the International Concert Series
- Selected Canadian paraprofessionals to perform for the Rising Stars Performing Arts Series
- Recruited members, selected concert programs, conducted rehearsal and performances for the Community Guitar Orchestra Concert Series

Sauble Beach Guitar Festival 2009-2019
Founder and Director of Education and Outreach

- Recruited members, conducted Junior and Senior Community Outreach Ensembles
- Organised Outreach Concert Series in Community spaces

Guitar Society of Toronto 2008-2015
Chair of the Education and Outreach Committee
Founder and supervisor of the society's six outreach programs

- Student Recital Series - organized yearly student recitals
- The Kenneth G. Mills Outreach Residency and Concert Series - organized free guitar concerts in GTA schools with selected masters and DMA students from the University of Toronto
- Guitar Society of Toronto Community Orchestra - Responsible for hiring a conductor, overseeing repertoire selection, securing rehearsal space and presentating concerts
- Pre-Concert Junior Performers Programme - Selected student performers to play before each international concert artist
- Urban Outreach Programme - distributed free concert tickets to GTA youth, including at Regent Part School of Music, Children's Aid Society, Canadian Mental Health Association
- Toronto Guitar Congress – Organised and coordinated all aspects of the all-day event for high school educators and their ensembles taking place at the University of Toronto

Professional Memberships

Ontario Registered Music Teachers Association, Brantford Branch, Vice-President 2012 – 2016

Canadian Music Festival Adjudicators Association 2010-2020

References

Kevin Watson, Chair, Music Education, Associate Professor
Don Wright Faculty of Music, Western University, London, Ontario.

Dr. Jeffrey McFadden
Associate Dean, Performance and Public Events,
Associate Professor, Teaching Stream: Orchestral Instruments, Guitar, Area Head Guitar
Director, Guitar Ensemble, University of Toronto

Dr. Brad Mahon, Professor, Dean, Faculty of Continuing Education and Conservatory,
Mount Royal University

Additional references available upon request