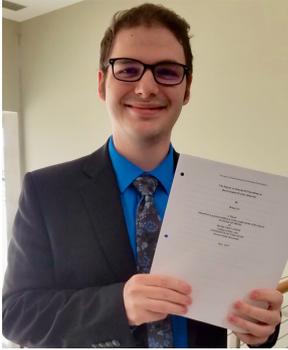


Practicing Productively: How Practice Journals can help K-12 Musicians be more Productive in the Practice Room

by Brian Cyr



For the longest time, I and many other musicians, were told that more practice leads to more success. The statistic that it allegedly takes 10,000 hours to master a skill (from Malcom Gladwell’s book *Outliers*) was something everyone in my college music classes could recite. While this is the sentiment among many musicians, research suggests that increased time spent practicing is not a reliable predictor of musical success (Duke, 2009). It was not until my sophomore year of college that my percussion teacher suggested a goal-oriented approach to practicing. He introduced this concept with a practice journal that prompted me and my fellow percussionists to plan out each practice session. Additionally, he offered the following incentive: If we completed all our goals for the practice session, we could be done. No matter how long it took. If we completed all our goals in half an hour rather than two, we could wrap up, go home, and watch Netflix. I found my practicing improved immensely after planning out my practice sessions. I was using more strategies, spending less time off-task, and overall increased productivity.

This personal experience was very influential in deciding to study the effects of practice journals on band student practice behavior. The modality of large ensemble classrooms (band, orchestra, choir, etc.) was also significant in my decision to pursue this research. As ensemble teachers, we expect our students to do most of their learning outside of class during self-guided practice sessions. This article discusses a study I designed in the Fall of 2020 analyzing the impact of structured journaling on band student practice behavior. It involved having high school band students recording themselves practicing, using a practice journal I designed for four weeks, then recording themselves practicing a second time. I will discuss the research behind the study, its methodology, and its results and implications.

Self-Regulated Learning & Self-Efficacy

While there has been substantial research in the area of musical practice, there are limited studies available in the area of practice journals and diaries and their effects on practice behavior. The journal designed for this study was informed by two main ideas: Self-Regulated Learning Theory, and Self-Efficacy. Self-regulated learning is learning guided by metacognition, planned, strategic action, and self-reflection. Self-efficacy refers to one’s belief in their own abilities. Research has shown that increased levels of both lead to increased music performance success, meta-cognitive awareness and academic success in all areas, including music.

Barry Zimmerman (2002), a professor of education philosophy and educational researcher, described self-regulated learners as:

“productive in their efforts to learn because they are aware of their strengths and limitations and because they are guided by personally set goals and task-related strategies, such as using an arithmetic addition strategy to check the accuracy of solutions to subtraction problems” (p. 64-66)

Self-regulated learning is a cyclical process with three phases: forethought, performance, and self-reflection. The forethought phase is the planning stage during which the learner analyzes the task at hand, creating goals and determining strategies to complete them. During the performance phase, the learner applies the strategies determined in the previous phase to their learning goals. During the final phase, self-reflection, they compare what they achieved in the performance phase to what they planned in the forethought phase analyzing successes and shortcomings. These findings then inform the following forethought phase, completing the cycle. The structured practice journal used in this study was designed to stimulate the forethought and self-reflection phases

of self-regulated learning. It stimulated the former by asking the participants to select piece(s) of music, musical elements to improve, and strategies to improve them and the latter by asking them to identify things they did that worked well and did not work well.

Self-efficacy is a core part of self-regulated learning and a reliable predictor of music performance and academic success. Albert Bandura (1997), a professor of social science in psychology and educational researcher, defines self-efficacy as follows:

“Self-efficacy refers to beliefs in one’s capabilities to organize and execute the course action required to produce given attainments... Such beliefs influence the course of action people choose, how much effort they put forth in given endeavors, how long they will persevere in the face of obstacles and failures, their resilience to adversity whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in coping with taxing environmental demands, and the level of accomplishments they realize” (p. 3)

Self-efficacy refers not only to the belief in one’s own ability, but also the awareness of the determined effort in relation to a specific task. The means that one’s self-efficacy is not the same for every task. An orchestral musician’s awareness of determined effort is likely to be much higher when learning a new orchestra piece than if they were introduced to an Afro-Cuban jazz piece. This lack of awareness would potentially lead to more ineffective strategies and goals. Within the cycle of self-regulated learning, self-efficacy is primarily developed in the performance and self-reflection phases when the learner’s belief in their own ability is confronted with the effort required of them. If they are successful, this will likely lead to higher levels of self-efficacy. This increase in self-efficacy beliefs is a result of something called inactive mastery experience, which is described as success in the face of obstacles through perseverant effort. Self-efficacy beliefs are then applied in the subsequent forethought phase when they are determining the quantity of work that can be done and the necessary strategies. Several studies in the area of music have found high levels of self-efficacy to have positive correlations with performance and academic success (McCormick, McPherson, 2003; McPherson, McCormick, 2006; Clark, 2010).

Methodology

What made this study particularly unique in the area of practice and practice journals is its methodology. It combines ideas from two studies to collect both self-reported and observed changes in practice behaviors. The first is a study conducted by Susan Kim (2008) where she had string players use a practice journal for four weeks and noted changes in their own practice behavior using an exit interview. The second is a study conducted by Peter Miksza (2012) where middle school band students were videotaped practicing for approx. 20 minutes each. The videos were then quantitatively coded for how much time participants spent exhibiting and frequency of specific behaviors including specific practice strategies and time spent off-task. The study I conducted combines both these elements: self-reported changes through a pre-study and post-study survey, and observed changes through quantitative coding of before and after practice videos.

This study began with participants completing a pre-study survey about their current practice behaviors. Questions were asked regarding how often they practiced, how long they normally practiced for, how often they planned their practice sessions in advance and reflected on them afterwards, and if they had used a practice journal before. Afterwards they recorded the first of two practice videos. Participants were instructed to videotape themselves practicing as they normally do for approximately 20 minutes, working on material assigned to them by their band director. The participants were then given a structured practice journal to use before and after every time they practiced for the following four weeks. The before section of the journal asked the participant to identify the pieces of music they would be working on, the aspects of the music they would like to improve, and list strategies they would employ to improve those areas. Under the aspects section of the journal, I included some examples to pick from including rhythmic accuracy, note accuracy, dynamics, articulation, etc., and gave them the opportunity to include areas that were not listed. In the after section of the journal, participants were asked what they did that worked well, and what did not go well. The journal stimulates the forethought and self-reflection phases of self-regulated learning and promotes the development of self-efficacy. After using the journal for four weeks, participants filmed themselves practicing for 20 minutes a second time after completing an entry in their

practice journal. The study concluded with an exit survey asking them questions about how the journal changed their practicing, if it improved their practicing, if they felt more productive, and how likely they were to continue using a journal, planning their practicing sessions, or reflecting on them afterwards.

After data was collected, the practice videos were coded for time spent exhibiting and frequency of various behaviors, analyzed for trends, and cross-referenced with journal entries and survey responses. When coding the videos, behaviors were split into four broad categories: typical playing, strategy implemented, and instrument maintenance. Typical playing refers to anytime a participant was practicing without modifying the music using practice strategies. Strategy implemented is defined as anytime a participant modified the music using a practice strategy, some of the most common strategies included repetition, slowing the tempo, using a metronome or tuner, or clapping/tapping a rhythm. Not practicing included any time the participant is not engaged with the music, including taking a break, getting music out, or leaving the practice space. The final category, instrument maintenance, referred to any instrument-specific activity that is necessary for practicing. Some of these included adjusting a mouthpiece or reed, emptying spit valves, tuning timpani, and adjusting instrument height.

When analyzing data from the practice videos, I compared the proportion of time spent in various activities between the first and second videos. Additionally, I compared the total amount of time spent practicing by combining the “typically playing” and “strategy implemented” categories and compared it with the amount of time spent “not practicing.” Finally, I compared the proportion of time spent practicing typically playing vs. using a strategy. Instrument maintenance, on average, took up less than 0.1% and was not included in the data analysis.

Results & Discussion

The most significant observation made from the data came in how time was managed throughout between the first and second practice video. While in general, the participants spent about the same amount of time not practicing between the first and second videos, there was a significant (13%) increase in the amount of time of time spent using a strategy. While this was the case, there was not a significant change found amongst the number of total and unique strategies. This is likely a result of participants not being introduced to novel practice strategies during the study. Instead, they thought more critically on how to best utilize the strategies they already used without expanding on the content of those strategies. When it comes to students spending the same amount of time not practicing, it is possible that there is a necessary amount of time a majority of the students needed to spend not practicing to be productive while practicing. Taking time for mental breaks, switching music, and resting one’s playing muscles may contribute to increased productivity while playing. Three primary trends were observed in how participants managed their time between the two practice videos.

Participants that exhibited Trend One spent more time using practice strategies and less time spent not practicing. These participants exhibited the greatest success from the practice journals. In addition to spending more time playing, they spent that time using strategies. When looking into their practice journals and surveys, it was evident these participants were more aware of how they were spending their time. One participant noted in their practice journal that the primary elements that caused them difficulty during practice sessions were motivation and environmental distractions. In the videos, there was a clear effort to mitigate these distractions. The first video took place in a practice room at their school where another classmate frequently interrupted their practice, and they would frequently leave the practice space to socialize with their friends. The second video was taken at home in an environment with no external distractions where the participant could spend much more time practicing rather than being distracted. Other participants that exhibited this trend also noted in their journals that they struggled staying on task and avoiding distractions during the practice session. This was clearly addressed as, between the first and second practice video, each participant decreased the amount of time spent not practicing.

Participants that spent more time using strategies, but a decrease in the amount of time spent practicing overall were categorized under Trend Two. While these participants did not spend more time practicing overall, the time they did spend practicing included more time using practice strategies. While environmental distractions were not mitigated, journal entries suggest that these participants were more concerned with how they were spending their time playing. Some participants noted that they focused on areas of the music they did not need to work on as much as others, or that they played through the music without fixing mistakes. This focus on how they were spending their time playing was evident in the positive reflections of their practice sessions as well. When

prompted “what did I do during my practice session that worked well for me?”, some of responses noted that focusing on problem areas of the music, and stopping to fix mistakes were beneficial to their practicing.

Participants that fell into Trend Three spent less time practicing overall and less time using strategies. These participants experienced the least success with the journals. However, these participants demonstrated very productive and focused practice in their initial practice videos. These participants spent over 75% their practice video playing and over 90% of that time, on average, using a strategy. By the metrics of this study, these participants were already demonstrating more self-regulatory behaviors in their first videos than their fellow participants did in their second video. The intervention of a practice journal may have disrupted what was already a successful practice routine. Additionally, the journal entries of these participants were reflective on the musical results of their practicing, rather than what may have been the cause of their practicing woes.

According to the results from the pre-study and post-study survey, most of the participants believed the journal was beneficial to their practicing. Seven out of twelve participants reported that using the practice journal improved their practicing. Eight out of twelve participants believed it helped their practice sessions to be more productive. In addition to entries made in the practice journals, data from the post-study survey also suggests that participants experienced an increase in metacognitive awareness as ten out of twelve participants reported that they had learned more about which practice strategies were most effective for them. While only five out of twelve participants said they were likely to continue using a practice journal in the future, eight reported that they were more likely to continue planning their practice sessions, and ten said they were more likely to continue reflecting on their practice sessions afterwards. It is likely the time it took to fill out the practice journal was seen as a burden, but the participants found value in the self-regulatory prompts.

Conclusion

A finding that was particularly surprising to me was that there was not significant change in the number of total strategies used or unique strategies. I had personally hypothesized that there would be change in the specific strategies used. This was likely due to students not being introduced to novel practice strategies and approaches as part of this study. The purpose of this study was to see the effects of the self-regulatory prompts included in the practice journal on practice behavior.

This study has implications for music teachers and musicians alike. When it comes to music teachers in primary, secondary, and post-secondary schools, along with private studio instructors, this study has shown that routine, self-regulatory prompts lead to increased self-regulation and metacognitive awareness during individual practice. Especially in large ensemble classrooms, it can be difficult to assess the musical progress of all students especially in situations where individual lessons are not an option. Using a journal such as this provides an opportunity for teachers assess student growth. For musicians, studies have shown that increased metacognitive awareness and self-regulatory behaviors often lead to academic and performance success, keeping a journal (whether assigned by a teacher or not) can benefit these aspects of learning. Furthermore, increased self-awareness of how one learns can expand to success in other academic areas as well.

I chose to design this study for two major reasons: 1) My own personal experience and success with practice journals and goal-oriented practice, and 2) because of the high level of expectation ensemble teachers have of students to learn independently through individual practice sessions. It is a cliché in the amount ensemble directors that ‘you do not come to rehearsal to learn your part, you come to learn everyone else’s.’ Despite this, it is not often discussed how to practice effectively and discover how one practices best. This study has shown that structured journaling is an effective tool to increase metacognitive awareness and improve practice productivity and can be a useful tool for an ensemble teacher. If you wish to read more in-depth about this study, it will be published in my thesis entitled *The Impact of Structured Journaling on Band Student Practice Behavior* in the late summer/early fall of 2021. If you would like more information about the practice journal or use it in your own instruction, please do not hesitate to email me at bricyr@live.com.

References

- Bandura, A. (1997). Self-efficacy: the exercise of control. W.H. Freeman.
- Clark, J. C. (2013). A qualitative exploration of higher self-efficacy string students preparing for a competition. *International Journal of Music Education*, 31(1), 4–14.
<https://doi.org/10.1177/0255761411431393>
- Duke, R. A., Simmons, A. L., & Cash, C. D. (2009). It's Not How Much; It's How: Characteristics of Practice Behavior and Retention of Performance Skills. *Journal of Research in Music Education*, 56(4), 310–321 <https://doi.org/10.1177/0022429408328851>
- Kim, S. (2008). Using a Practice Diary to Promote Self-Regulated Instrumental Practice. *American String Teacher*, 58(3), 34-36
- McCormick, J., McPherson, G. (2003). The Role of Self-Efficacy in a Musical Performance Examination: An Exploratory Structural Equation Analysis. *Psychology of Music*, 31(1), 37-51.
- McPherson, Gary E, & McCormick, John. (2006). Self-efficacy and music performance. *Psychology of Music*, 34(3), 322–336. <https://doi.org/10.1177/0305735606064841>
- Miksza, P., Prichard, S., & Sorbo, D. (2012). An Observational Study of Intermediate Band Students' Self-Regulated Practice Behaviors. *Journal of Research in Music Education*, 60(3), 254–266.
<https://doi.org/10.1177/0022429412455201>
- Zimmerman, B. (2002). Becoming a Self-Regulated Learner: An Overview. *Theory Into Practice*. 41. 64-70.