



ACADEMY OF MUSIC AND DRAMA

Recipe for Learning a Piece of Music

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ABSTRACT

Key words: Recipe, Parkinson's Law, Double Bass, Rachmaninoff, Williams, Learning, Efficient, Goals

Abstract: In this thesis the author creates a recipe for learning a piece of music that can be applied to any piece, and explores the benefits of following said recipe. The main focus is to increase efficiency when practicing.

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1. Introduction

Background

Occasionally, when practicing a piece of music, I get stuck or reach a point where I don't know how to continue my work. Usually a lesson with my teacher solves the situation. For a while now, I have pondered what it would be like to create a method for learning a piece that would provide me with all of the steps for learning a piece. That way, whenever I am unsure as to what the next step is I need only to consult the method, or recipe.

Research Questions

With this thesis I shall attempt to answer the following questions.

1. Is it possible to create a plan of action – a recipe, which, when followed, increases the efficiency of learning a piece of music?
2. What would such a recipe look like?
3. Would this recipe be applicable to any piece of music?

By attempting to answer these three questions I am sure to learn a great deal, from which I hope others can benefit as well.

2.Rationale

Problem

My main instrument is the double bass. When I first began playing music seriously I was told frequently that daily practice was necessary for my development. However, I struggled to adhere to any practice routine and began to doubt my commitment to my dream of becoming a musician. Fortunately, I persevered and, years later, I now understand the origins of my lack of motivation. My goals in practicing were not clearly defined. They were akin to «to play as well as possible», «to get better» or «to work harder». By having vague goals, I was setting myself up for frustration and disappointment. It was not that I lacked the motivation or will to excel. I had simply not yet learned the art of goal-setting. It would have been more effective had my goals sounded more like «to be able to play a piece by memory», «to imitate my teacher's sound» or «to practice six days a week». Even these goals can be made more nuanced.

Effective Versus Efficient

A significant part of being a musician is practicing. We practice in order to improve our technique, to learn new music, to develop our musicality and to maintain our musical prowess. The work life of a musician is often similar to that of a professional athlete. Both the musician and the athlete spend a large part of their time training for performances that last a fraction of the time they spend in preparation for that moment. It is not uncommon that out of 100 hours of playing, only 1 hour is spent performing. Since we musicians spend so much of our time preparing and practicing, it makes sense that it is within our best interest to maximize the efficiency of the time we spend on this activity.

For the sake of clarity, I offer two definitions. To be *effective* is to produce the expected results. To be *efficient* is to produce the expected results with the least waste of time, energy and other resources.

There is a common misconception among classical musicians that in order to become a great player one needs to practice as much as possible. It is true that in order to improve we need to practice, however, more is not necessarily better. While many say «practice harder», I say «practice smarter». Our bodies and minds have limits.

The mind can only take in so much information at once and the body can only repeat the same movements a finite number of times. They need their rest and pushing ourselves too far can lead to irreversible damage. After a certain amount of time the learning curve flattens out and we are not doing ourselves a favour by pushing onwards (see *Figure 1*).

During my years of playing music I have become increasingly effective in my practice. When I work, I usually produce the desired outcomes. However, it is now time to graduate from practicing effectively to practicing efficiently. I want to be able to produce the desired outcomes with less effort and less time, and with less fatigue to my body. In short, I want to achieve more by doing less.

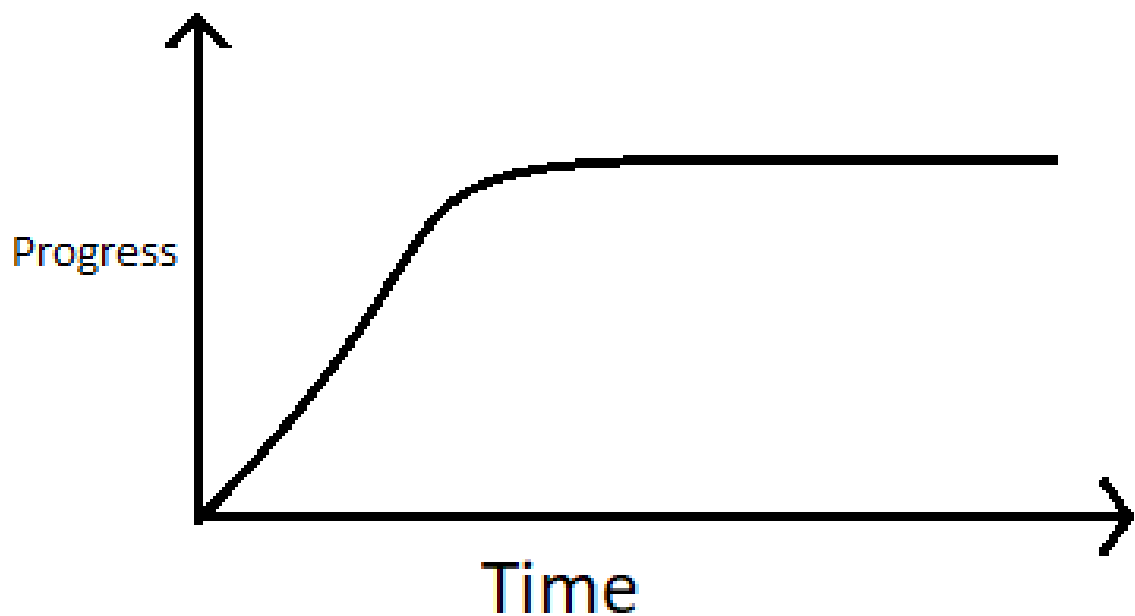


Figure 1 Learning Curve

Goal-Oriented Work

One of the most promising methods for increasing both effectiveness and efficiency that I have come across is that of goal-oriented work. In my experience, practicing with a clear goal in mind is much more effective than practicing simply for the sake of practicing. Having a goal to pursue provides increased focus and motivation. However, having a goal can also backfire if the goal is not set wisely. If a goal is too ambitious, or is not clearly defined, it can overwhelm us. The human brain

was evolutionarily hardwired to survive and naturally tries to both avoid pain and gain pleasure, as well as conserve energy whenever possible.¹ This is one of the reasons that procrastinating is such a common behavior.

Work that requires thinking, i.e. work that cannot be automated, such as practice, involves the expenditure of energy. Therefore, the brain would prefer to check Facebook, go on YouTube or eat a treat where rushes of dopamine (a neurotransmitter chemical) are sure to be found, rather than to practice.² Dopamine, also known as the feel-good hormone, is a chemical released by cells in the brain and is associated with feelings such as love, bliss, and motivation. Dopamine also plays an important role in several functions including those of concentration, memory, attention and learning. Although engaging in such evasive behavior often gives us a sense of relief or pleasure in the short term, it can be the source of immense frustration in the long term.

Baby Steps

To side-step this natural inclination of the brain to avoid effort, it is helpful to divide larger goals into smaller ones. Smaller goals are less daunting and are easier to clearly define so we are more inclined to achieve them. The frequent achievement of goals, albeit small ones, releases a rush of dopamine in the brain which creates the feeling of succeeding and builds our confidence. This in turn increases the likelihood of achieving the next goal since the brain wants to recreate the good feeling.

Learning a new piece of music is often a fairly long-term project, sometimes lasting for several months. As there is theoretically no limit to how well one can play a piece, the goal of «to be able to play the piece as well as possible» is detrimentally vague, not to mention literally impossible to achieve. Such a goal may sound noble but it only makes our work even more demanding.

¹ "The Biology of Happiness"

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3321158/> Access Date: June 11, 2018.

² "What is Dopamine? Understanding the "Feel-Good Hormone"" University Health News <https://universityhealthnews.com/daily/depression/what-is-dopamine-understanding-the-feel-good-hormone/> Access Date: June 11, 2018.

Taking the time to clearly define one's goals and then splitting those goals in to smaller, more achievable steps can spare one from frustration, in addition to increasing the efficiency and effectiveness of one's learning.

Understanding

During my music studies I realized that in times when a big concert was approaching I experienced an increased amount of motivation to practice. An impending deadline seemed to give me clarity and focus, and I was able to accomplish vast quantities of work in short periods of time. I knew exactly what needed to be done, how to do it, and perhaps most important of all, I knew why I was doing it. This puzzled me and I wondered why it was so difficult to achieve this level of motivation and clarity in my everyday music making.

The Solution

One possible solution that occurred to me was to make a recipe of sorts - a step by step manual that I could follow when learning and preparing a piece. My hope is that with my «recipe» I will have an effective and efficient way of splitting a large task into several smaller ones in order to simplify the learning process and bringing me closer to my goals in a shorter period of time.

3. Research Method

Every piece of music is different, provides diverse challenges and requires particular work. With this in mind I realize that the recipe ought to be flexible so as to accommodate the various demands of assorted pieces.

Parkinson's Law

In order to develop my recipe, I decided to utilize Parkinson's Law. This adage was articulated by the British author Cyril Northcote Parkinson in the 1950's and

states that «work expands so as to fill the time available for its completion».³ Thus, a task will swell in both perceived importance and complexity in relation to the time that has been, or can be, allotted to it.

If we are given five hours to complete a large task, we will often use all five hours to complete that task. However, if we have only one hour to complete the same task, we will find a way to complete it in that time frame. It is the magic of the impending deadline. This is exactly the boost in motivation and efficiency that I experienced when I had important concerts or performances approaching.

I decided to use this law to help me devise a practice recipe by taking on the challenge of learning a new piece of music in only 24 hours, and finish off with a small performance for my peers. My plan was that by giving myself an impractically short amount of time to learn a piece I would effectively evade the rife opportunities for focusing on subordinate details and keep myself to the bare essentials for learning a piece of music. As every piece requires a uniquely tailored approach, my hope was that Parkinson's Law would enable me to create a broadly applicable practice recipe that can be used on any piece.

The 24-hour Challenges

I made the conscious decision to not plan my first 24-hour experiment. I wanted to just wing it. That way, I felt I would get a good look at the patterns that I have established, both consciously and unconsciously, over the years. It is precisely these patterns that I wish to understand and improve upon so as to become more efficient when learning a piece.

While the spaces of time in which I completed these experiments were 24 hours, the amount of time I spent consciously working on the pieces in these experiments was much less. Obviously, I had to take time to sleep, eat and attend to various other obligations and work.

There are many degrees to learning a piece of music and opinions as to what it means to have learned something. Some might say that a piece is not really “learned”

³ “Parkinson’s Law” Wikipedia, last modified 29 March 2018

https://en.wikipedia.org/wiki/Parkinson's_law Access Date: June 11, 2018.

before it can be played from memory. For my particular experiments I chose to define “learned” as being able to perform and record the piece at a reasonably high level, both technically and artistically, with the aid of the sheet music. It was my intention to simulate a setting resembling that of the short-notice appearance of a serious performance opportunity.

The Pieces

The pieces I chose for my two 24-hour experiments were the *Theme From "Schindler's List"* by John Williams,⁴ and Rachmaninoff's *Vocalise*.⁵ I chose these pieces partly for their technical ease and partly for their range of opportunities for artistic interpretation. Throughout both experiments I made sure to take notes on what I was doing and on the duration of every step of the way.

«What» versus «How»

With these experiments I was interested mostly in «what» rather than «how». I wanted to study what steps I took in learning a piece and was less concerned about how I performed each step.

1st Challenge

Step 1. With *Schindler's List* I began with a 15-minute session during which I listened to several recordings of the piece with the score in front of me. My focus with these first minutes was to understand the form and geography of the piece (i.e. look for high and low points, and opportunities for changes in character), and gather musical inspiration to create my own interpretation of the piece.

The piece was originally written for violin and includes long *legato* slurs which are challenging to play on the double bass due to the shorter length of the bass bow and the different physical demands of a bass string in relation to sound.

⁴ John Williams, *Theme from "Schindler's List"* (from "*Three Pieces from Schindler's List*" for violin and piano), (Hal Leonard Corporation, 1993).

⁵ Sergei Rachmaninoff, *Vocalise Opus 34, No.14*, Transcribed by Leonard Rose, (New York: International Music Company, 1960).

Consequently, I also contemplated various alternative bowings during this first session.

Step 2. Next, I picked up my instrument and for approximately 30 minutes I played through the piece looking for any technically challenging spots.

Another trial with playing a piece written for violin on the double bass was that some sections needed to be moved an octave down for me to be able to play them. During this session I tried out several of the bowing alternatives I had thought of in the session prior to picking up my bass.

I recorded myself during this initial run-through (see Audio 1). In the recording I attempted to play through the entire piece, stopping only when I did not entirely understand the music and needed a second attempt at the figure in question. The playing is quite sloppy as my goal was simply to become acquainted with the music before continuing my work.

Step 3. and Step 4. Then came two of the most important segments of my practice, deciding all of my fingerings and bowings. This took approximately one hour. I found that deciding to maintain specific fingerings and bowings eliminated a lot of uncertainty and allowed me to concentrate on creating a musical interpretation and smoothing out any technical challenges. It worked greatly to my benefit that I had studied the score and listened to recordings prior to deciding my fingerings and bowings because I had more artistic opinions to base my bowing and fingering decisions on. Had I reversed the order I would have possibly had to change many fingerings and bowings that did not suit my musical decisions, thus leading to much more work.

Step 5. The final session of the first twelve hours allotted to this experiment was about 40 minutes long and was spent playing through the piece a few times. By doing so my intention was to solidify and assimilate the work I had done so far and to begin to determine the next steps that I would take the next day.

Step 6. The next day I began by stating a few intentions, which were to work on smoothing out the more demanding passages in the music, to study the piano part and to determine all of my initial musical decisions.

After a solid warm up, I played through the piece once to identify what passages I found to be challenging. Once I had done so, I set about smoothing them out. This took about 45 minutes before I was satisfied and moved on to the next step.

My satisfaction was subjectively judged by my ability to play the passages in a way that sounded effortless.

Step 7. With the piano score in front of me I set about listening to several more recordings while following the piano part. I later changed to following my solo part while continuing to focus on the piano voice. My aim was to become more familiar with the piano part and its relation to my part. There is, for instance, a section in the middle of the piece where the piano plays the melody and I play the accompanying roll. By putting aside the piano part and studying my part instead while continuing to listen to recordings and concentrating on the piano voice, I wanted to create visual cues in my part, so that I would know more or less what the piano was playing throughout the whole piece. This step went on for 30 minutes.

Step 8. The last few minutes of the first 24-hour experiment/challenge I spent playing through the piece attempting to incorporate all of the work I had done in this short amount of time. I invited a colleague in to my practice room to listen to the final result. At this time I made another recording to be able to compare with the first recording. (see Audio 2).

2nd Challenge

For my second 24-hour challenge, I wanted to take advantage of a recording device in the learning process. I have previously experienced significant benefit from recording myself and listening to the recording shortly afterwards. Doing so expands my self-perception. It can be quite difficult to be aware of what I sound like on the other side of the room while I play.

I also decided I wanted to use the technique of practicing seriously under tempo. From numerous teachers, as well as my own experience, I have grasped that playing a passage at half speed or even slower can greatly increase my understanding of the passage, as well as my ability to execute it at its intended speed. Playing at an exaggeratedly slow tempo allows the brain to grasp more of the components involved in rendering a passage.

Although it is not necessary to be consciously aware of all of the mechanical processes going on in the body while playing (which is staggeringly many), having even a minor increase in proprioception can lead to more relaxed and controlled

playing. I found it mentally and emotionally liberating to be aware of what it feels like to move the shoulder in preparation for a large shift can calm the hand and improve the probability of one's fingers landing accurately.

Step 1. I began the second 24-hour challenge just as I did the first challenge, by listening to the piece, in this case *Vocalise*, several times. I did this with the score in front of me so I could follow along with the music. This went on for about 45 minutes.

While listening to recordings, several questions arose. In *Vocalise* there are two sections that are meant to be repeated. I decided not to do the repeats for the sake of simplicity and to keep the piece about the same length as *Schindler's List*.

Double bassists often play the parts of *Vocalise* an octave up to create more contrast. Again, I chose not to follow this trend as I had a tight deadline.

Step 2. For the next step I wanted to decide my fingerings. From the previous challenge I knew how beneficial it was for me to decide my fingerings as soon as possible and was curious to know if I could accomplish this step earlier in the process. However, I felt my understanding of the piece was not mature enough to decide definitive fingerings so I changed my focus to playing through the piece. I needed to literally «feel» the piece before making fingering decisions. After playing through the piece for 10 minutes I felt more confident as to what the next step of the process should be. Rather than focusing on fingerings I concentrated on bowings.

As with the first 24-hour challenge I recorded this initial run-through (see Audio 3). Once again, I tried to avoid stopping for very long even when coming across difficulties.

Step 3. *Vocalise* provided many bowing alternatives and few challenges regarding the fingerings, whereas *Schindler's List* presented more fingering questions than bowing questions. Deciding the bowings took about 1 hour.

Step 4. With the bowings decided, I played through the piece again. This took 5 minutes. At this stage I was feeling confident about my decisions regarding the steps I had taken thus far in the process as well as what steps were next. I found no technically difficult spots.

I reviewed what I had done for the day and wrote down some intentions for the following day, namely to study the piano part, decide all fingerings and record myself.

Step 5. I began the next day's work with a listening session of 30 minutes,

during which I studied the piano part and eventually began gathering ideas for my musical decisions.

Step 6. Next, I picked up my bass and made all of my fingering choices. That took 30 minutes.

Step 7. Then I played through the piece from top to bottom and filmed myself with my smartphone. I immediately watched the footage and tried to notice if I was doing anything unconsciously. This took 10 minutes. I did not notice anything and suspect that is partly because the performance was still very fresh in my memory. I find in general that I notice more when a few days have passed between making a recording of myself and watching or listening to it. The time constraints of this experiment simply did not allow for the full benefits of using recordings of myself as a tool. Further research in to the potential benefits of recording oneself is beyond the scope of these experiments and this thesis.

Step 8. Following my recording of myself I performed the piece for a peer and recorded the performance (see Audio 4).

4. Results

While completing these two challenges I realized that most steps were common to learning both pieces. These steps constitute the aspired recipe. The steps are to listen to the piece, decide fingerings, decide bowings, study the piano part and make musical decisions (not necessarily in this order). The main difference in learning the two pieces was how much time I spent on each step. Below is a visual representation of the approximate duration of each step for both challenges. The charts show how each step required different amounts of time for each piece.

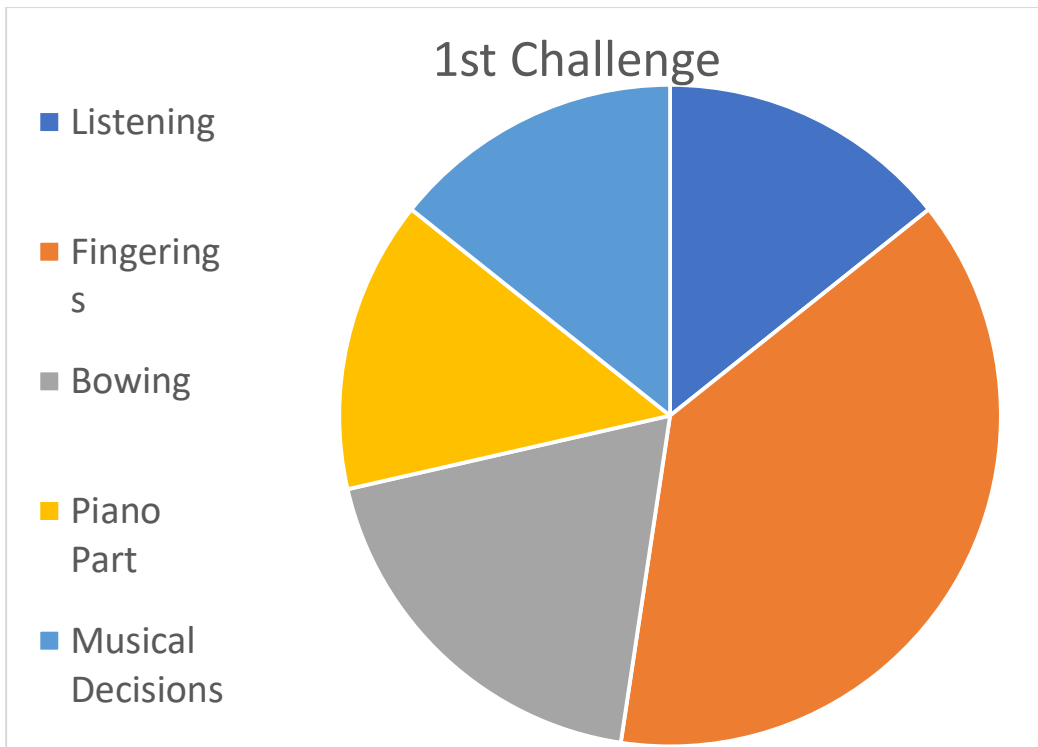


Figure 2 1st Challenge

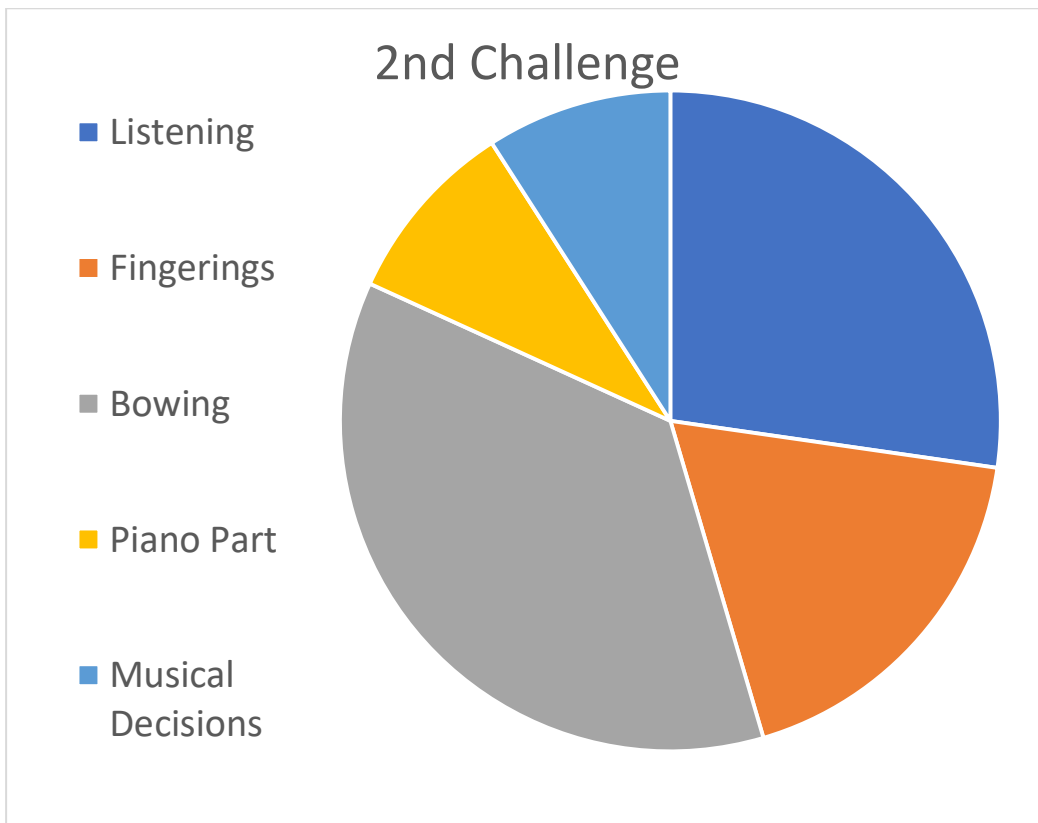


Figure 3 2nd Challenge

Answering Research Questions

1. Is it possible to create a plan of action – a recipe, which, when followed, increases the efficiency of learning a piece of music?

Yes. I surprised myself with the sheer speed at which I reached a reasonable level of proficiency with the chosen pieces within 24 hours.

During the two 24-hour challenges I realized that there were several steps I had taken during these experiments that I had not taken with other pieces I was working on for different occasions. When I made sure to take the missing steps with these pieces, I noticed an immediate improvement.

2. What would such a plan look like?

In short, the plan consists of a number of steps, the order of which is somewhat flexible.

Step 1. To listen to the piece in focus.

Step 2. To decide fingerings.

Step 3. To decide bowings.

Step 4. To study the piano part (or the parts of whatever other instruments make up the ensemble) with a focus on understanding how the different parts in the score relate to one another.

Step 5. To make all musical decisions such as how to phrase, what timbre to use, tempo and dynamic changes, etc.

Beginning with Step 1 is important as it provides the foundation on which all of the other steps are based. The knowledge gained from completing Step 1 informs one's choices in the following steps. I found that the order of steps 2 through 5 is flexible and can be changed to suit the particular challenges the piece presents.

3. Would this plan be applicable to any piece of music?

My hope is that this plan is applicable to any piece of notated music, be it solo, orchestral or chamber music. Various pieces will always present unique challenges and every performer will have their own approaches to tackling a piece of music.

However, I feel like this plan provides a practical and constructive guideline by which to tackle a piece. It is not exhaustive. One might complete every step of this plan and still have plenty of room for improvement, but it is a start that aids the user in swiftly and efficiently reaching an encouraging level of competence.

Reflections

Upon starting the second 24-hour challenge, I was curious to see if I could make my musical decisions earlier in the process, and perhaps do more work without my instrument before continuing the work with it. What I found was that it was beneficial for me to pick up my bass and begin to play the piece as soon as possible once I had listened to the piece a few times. The tactile experience that came from studying a piece with bass in hand gave me a more nuanced understanding of the piece sooner and helped me to better intuitively decide what aspects of the piece to focus my energy on. In not doing so I risked having an inadequate understanding of the piece which I would be basing my decisions upon, both musical and technical.

Flaws

1. Due to the brevity of my experiments I was only able to reach a certain level of proficiency with the pieces at hand. With more time, I could have reached a deeper understanding of the pieces and would have been able to perform them at a higher level. Thus, my recipe can lead one only to a certain level of understanding, at which point the musician must decide for his/herself how to continue the learning process, if it is their intention to continue past the reach of this recipe. After all, our potential to understand is theoretically limitless. It is up to the individual how far to go.

2. As musicians and as humans we are always growing and developing. Nothing is constant, nothing is static. As a result of this, our needs, our interests and our tendencies, among other things, are also in a constant state of flux. Over time, something that helped us grow may begin to hold us back. What helped us reach our current position might be the very thing holding us back from further progress. With this in mind, it is within reason that my recipe will one day render itself obsolete. It will have helped bring its user to a level where there is no longer any use for it.

Conclusion and Discussion

This thesis taught me the importance of having a clear interpretation. Having a clear interpretation involves knowing exactly how to play each passage. Fingerings, bowings and phrasings are all parts of an interpretation. Once these decisions are made and an interpretation is formed, truly free music-making can begin. Then, and only then, can one begin to construct a truly magnificent piece of art. In order to perform a polished interpretation, one must first have a clear idea of one's own interpretation. One's interpretation may change and evolve over time. That is to be expected, even strived for. However, certain steps must be taken and certain decisions must be made for an initial interpretation to emerge.

In the beginning of my music studies, when I was in the process of studying a piece, I would often postpone deciding such important interpretational prerequisites. I was hesitant to make those decisions as I was afraid that I would make bad decisions or that I would, for some reason, need to change them later in the process. In a self-defeating way I was trying to save time by stalling making decisions that might need to be revised, and in the process, I was essentially wasting time.

I now feel much more confident in my ability to work efficiently.

In this thesis I avoided exploring different methods of completing each step of the learning process. In the future I could do so to provide more precise instructions and further refine the recipe.

It will be fascinating to research what changes and adjustments need to be made to the recipe in order for it to be applicable for musicians playing other instruments than the double bass.

In the future I hope to look into the later stages of learning a piece, the steps that enable free and masterly playing. I hope that I will then have a complete recipe with steps to guide me through the entirety of the deep and elaborate learning process.

Recordings

Audio 1. Schindler's List, first run through, 28th April 2018

Audio 2. Schindler's List, performance for peer, 29th April 2018

Audio 3. Vocalise, first run through, 13th May 2018

Audio4. Vocalise, performance for peer, 14th May 2018

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