

## Effective Music Practice. Equipping Students with the Tools to Succeed

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### Abstract

*By showing their musical achievements in concerts, auditions, competitions and the like, music students are not only executing notes, but they are exhibiting their aspirations and exposing their affective dimension. Many times, their personal dreams, as well as their own professional future are put at a stake with the resulting social and affective consequences. This represents a great responsibility for teachers since, as educators, they must provide their students with the necessary tools to succeed in their endeavor. In this essay, the author provides an overview on different music practice strategies whose effectiveness have been tested in rigorous research studies or proved by experienced teachers. The author expects they may be helpful to teachers and students to overcome the musical challenges the learning of music and its public performance entails.*



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## INTRODUCTION

Frequently, while walking in the hallways of the music school where he works, the author has been able to hear students practicing, apparently, without a specific goal, repeating the piece incessantly from the beginning to the end very loud and fast, without stopping to correct their mistakes. One day, out of curiosity, he asked a piano student how he was practicing and was astonished when he answered: "I play the piece over and over until I feel I know it." As a teacher, the answer aroused a tremendous concern in him. Evidently, the student did not know about strategies of self-regulation and effective practice. Moreover, apparently, his teacher was not contributing to teaching him how to practice. Time later, the author, in his role as a jury in the final examination of that semester, had the opportunity to evaluate that student's performance. Even though he did not fail, the results were quite poor. The student knew it and got off the stage demoralized and with tears in his eyes. Since then, the author of this essay became interested on the topic and has work intensely in an effort to gather information that can help students to have more productive practice sessions and, as a result, more successful performances; presentations where they can get off the stage with a smile on their face and not with a sad grimace.

With that idea in mind, in this essay the author provides an overview on different music practice strategies whose effectiveness has been tested in rigorous research studies or proved by experienced teachers. The author expects they may be helpful to teachers and students to overcome the musical challenges the learning of music and its public performance entails.

## RESEARCH METHODS

At any level, probably, the most important job for music students consists of developing their musical skills and achieve the best possible performance of their pieces. After the instrument lesson, students must study their music in the solitude of their practice rooms, away from the supervision of their teachers (Jorgensen, 2002). During the time spent mastering the technical and musical challenges of their studies and pieces, students must take a series of decisions related to their practice routine. Based on the instructions of their teachers, advice from peers, hopefully information obtained in a book or in *YouTube*, as well as their own intuition, students must decide how to organize their practice and what strategies to use. Such decisions may lead to growth and musical achievement or can keep them at a level of stagnation and frustration.

Some researchers have emphasized the important role of sustained practicing as a determining factor in the development of expertise (Bonneville-Roussy & Bouffard, 2015). However, research also reveals musical achievement and growth is not only related to the amount of time devoted to the practice of a piece, but also to the effectiveness of practice (Hallam, 1997). Thus, practicing not only means sitting at the piano for hours, or playing the violin all day. A sharp awareness and a continuous goal oriented attitude, together with the use of adequate strategies to learn, master and, when needed, memorize a piece, are crucial to get satisfactory interpretative results.

Unfortunately, students may take years to develop a mature understanding concerning the necessity of implementing effective practice strategies in their daily routines (Bugos & High, 2009), and may have to fail many times until they recognize that the mere acquisition of technical and musical skills is not enough to accomplish a significant performance (Boucher et al., 2017) and achieve an artistic rendition of a master work (Neuhaus, 1973). Thus, it corresponds to teachers to take an active role in promoting and developing in their students the conviction that only through the implementation of effective and conscious practice routines they will be able to attain a holistic and fulfilling performance experience.

In other words, instrument teaching goes beyond the supervision of the technical aspects of music making. Music instructors must teach students how to analyze music, how to choose and implement the right strategy to achieve a certain goal, how to evaluate results and adapt practice, and so forth. Furthermore, they must promote an honest, sincere and continuous communication between them and their students so they may better supervise the students' advancement. For example, when instructors ask pupils to show how they have been practicing a certain passage, they may get a clue concerning how to help them to overcome a technical-musical challenge.

Yes, the work of teachers has become overwhelmingly technical and complex. In that respect, it is not surprising that Hargreaves (1998) affirmed that society and the knowledge economy of the 21<sup>st</sup> Century have impose enormous obligations and responsibilities on them, while at the same time they constitute the essential agents to promote education.

## RESULTS AND DISCUSSION

### The Three Self-Teaching Dimensions

According to Jorgensen (2004), an effective music practice routine involves three self-teaching dimensions: a) Planning and preparation of practice, which refers to the conscious and deliberate planning and organization of the practice session, as well as the good management of time; b) Execution of practice, which involves the implementation of consciously selected strategies to achieve specific musical and technical goals; and c) Observation and evaluation of practice, which is concerned with the individual's capacity to monitor progress, check for effectiveness of practice techniques and procedures, evaluate results, and take actions to improve performance. Of course, this three dimensions conform a virtuous cycle that must be repeated as many times as needed until students may achieve the expected results.



Figure 1. The three self-teaching dimensions by Jorgensen (2004)

As the reader might have noticed, the author has employed the terms “consciously”, “conscious” and “deliberate”, several times in the last paragraphs for, from his perspective, the successful achievement of musical goals will depend on the level of mindfulness exerted during the practice session as well as on the degree of authentic wanting to learn. In other words, the mere automatic implementation of effective practice strategies will represent the 50% of the work. The other 50% consists of the continuous awareness and reflection students must exercise throughout the practice session.

### Dimension of Planning and Preparation of Practice

The planning and preparation of a practice session starts with the deliberate establishment of a specific time period to practice (Hallam, 2001). Certainly, the time devoted to the practice of music does not warrant a successful performance, yet it is a very important condition (Hallam, 1997). Unfortunately, in the experience of the author in his role as a piano teacher, many students struggle to set and follow a program to practice, mainly due to bad habits (like not having a healthy schedule to sleep) or having too many activities during the day.

Thus, the recognition on students behalf concerning the role that this important aspect plays in the achievement of satisfactory musical results, as well as their decision to set a regular schedule to practice, represents a key factor in their development of maturity and a sense of responsibility, as well as in their growth as professional musicians. Of course, the schedule does not have to be same for every day. The idea is to establish a healthy program of music practice that takes into consideration meals, the attendance to other courses as well as the time to rest. In this respect, the author believes it would be very positive that students with the advice of their teacher, writes the practice schedule and commits to follow it with discipline and self-respect.

A second step in the process of constructing this dimension, is represented by the organization of the time of the practice session in a logical and sequential order (Santana, 1978; Barry, 1990; Miksza, 2011), as well as by the establishment of clear and realistic goals. If one goes back to the anecdote of the student playing the piece over and over as the sole strategy to learn a piece, it is evident that, among other things, he was incapable of setting clear and achievable goals.

According to Locke et al. (1981) setting short, medium and long term objectives not only guide the practice, but also helps students to maintain their concentration and awareness and promotes musical growth. Furthermore, working toward the achievement of goals stimulates effort, increases persistence, and favors the development of other effective practice strategies on the pupils behalf (Byo & Cassidy, 2008; Locke & Bryan, 1965).

Students can help themselves by using diaries and blogs or simply by writing notes in the score, for these resources promote reflection, foster meta-cognition (Cremaschi, 2012), and favor concentration (Kim, 2008). For example, a careful and, most of all, conscious analysis of the score (Herrera & Cremades, 2014; Nuki, 1984) with the corresponding written annotations (Teixeira-Dos Santos & Hentschke, 2011) may make students aware of the differences between the exposition and the recapitulation of a sonata form, and thus, may prevent

them from getting lost during a public performance. Several times the author has witnessed students playing the wrong 'bridge' between the 'thematic group A' and the 'thematic group B' and find themselves finishing the first movement sooner than expected for they have skipped the whole 'development section.'

Finally, but not least, this is also the moment for students to create what Neuhaus (1973) called the "aesthetic image." According to this Russian pedagogue, students must reflect on the music they are performing until they are able to develop in their mind the ideal interpretation, for that, in turn, will guide them not only to find the strategies to practice, but also to achieve an artistic rendition of the work.

As Crothers (2010, p. 258): explains: when the pianist has a clear and desirable tonal image in his mind with emotional involvement, consciously and also subconsciously the brain sends orders and signals to the hands and the necessary adjustments to the hands and fingers position. the touch of the fingers, etc., resulting in a different and improved performance.

### Execution of Practice

The second dimension involves the actual implementation of strategies involved in the practicing of music. There is a wide variety of them and students, with the advice of their teacher, must decide which one is the most adequate to achieve a certain specific goal. For example, if a student wants to learn a whole section of a piece, he might practice in a pyramidal fashion. This strategy consists of practicing one cell or phrase at a time (this depends on the student's capacity), and gradually unites them until learning the whole piece (Nielsen, 2001). The author of this essay gave the name of 'pyramidal fashion practice' to this strategy, because of the shape shown in Figure 2.

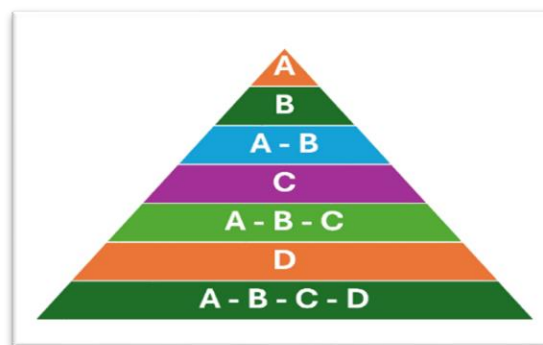


Figure 2. Example of pyramidal fashion practice

The student may want to implement other variants of this strategy, such as practicing the last cell or phrase, then the penultimate, and so forth, until learning a complete section or part of the composition (Bernstein, 1981 Berr, 2010). The author of this essay has called it 'backwards practice strategy.'



Figure 3. Backwards practice strategy

Of course, there is also the possibility of choosing a cell or phrase that is in the middle of a section of the music and gradually learn the cells or phrases located at the left and at the right. The author has called it 'middle to the sides practice strategy'.

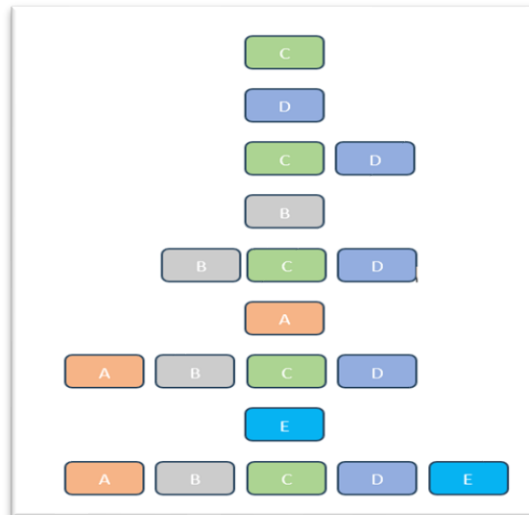


Figure 4. Middle to the sides practice strategy

Now, if students want to overcome a certain technical difficulty, probably one of the most effective strategies is represented by isolating the passage to practice it separately. This practice technique allows them to focus on the challenge (Maynard, 2006) and even promotes the memorization of the passage (O'Brien, 1943; Nielsen, 2001; Miklaszewski, 1989). Of course, this strategy may be combined with other ones, like practicing slowly and/or practicing with metronome (Duke, et al., 2009; Hallam et al., 2012; Miksza, 2007 and 2011; Nielsen, 2001).

At this point of the essay, the author would like to share a very simple yet effective practice strategy that he calls 'The five objects practice system'. This strategy promotes concentration and full awareness and consists of the following steps:

1. The student must play a cell, measure, phrase, or section 5 times in a row without error.
2. Every time the cell, measure, phrase, or section is performed correctly the student should pass an object (a paper clip, a coin, a little piece of paper, etc.) from the left side of the music stand to the right side.
3. If the student commits an error on any of the 5 times, he must return the objects to the right side of the music stand and begin the process again.

When it comes to memorizing the piece, the author of this essay strongly believes in the importance of mental practice. Influential pedagogues like Bernstein (1981), Giesecking & Leimer (1972) and Westney (2006), among others, have pointed out the importance of fully supporting the learning of music and its public performance on the implementation of practice strategies away from the instrument. More recently, the results of a significant number of studies have indicated that mental exercise is an important strategy in promoting musical growth and achievement and is one of the most important ways of fostering musical meta-cognition (Coffman, 1990; Johnson, 2011; Ross, 1985; Theiler & Lippman, 1995; Reybrouck, 2009), and preparing for a public performance (Gregg & Clark, 2007). For example, creating mental maps is a strategy of high metacognitive level, because it requires students to use all their theoretical knowledge to establish connections or relationships that allow them to create a map (Shockley, 1997).

Barry and McArthur (1994), and Ross (1985) recommend combining real practice and mental exercise, since practicing in this way promotes higher order metacognitive skills. In addition, mental exercise helps to maintain a steady tempo (Johnson, 2011), contributes to a more effective memorization (Holmes, 2005; Rubin-Rabson, 1941), limits distractions, maintains mental acuity, helps to correct errors, favors a more secure execution (Gregg et al., 2008), and promotes achievement (McPherson & McCormick, 1999).

The author of this essay would like to share a couple of practice strategies away from the instrument. The first one is specifically for pianists. Students may draw a regular size keyboard on a piece of cardboard and practice on it. This exercise promotes the full mental involvement in the act of practicing and thus promotes musical metacognition. The second practice strategy involves lowering the tempo of an existing recording of a piece without changing the pitch, by using a software like *Audacity*. Then, while the music is played, the slow tempo will allow students to follow it with their minds, which in turn, will help them to evaluate what has been really memorized and what sections must be improved.



Of course, teachers must encourage students to create their own practice strategies in order to overcome the challenges they may find in the music they are learning, for, as doing so they develop their critical thinking skills, increase their capacity to resolve problems in real contexts, and exert their meta-cognition (Byo & Cassidy, 2008; Nielsen, 2001; Williamon & Valentine, 2000; Zimmerman, 2008). Teachers will never regret for emphasizing this educational aspect, for it is not only needed in music education but represents one of the most valuable attributes in the formation of a human being.

Another strategy for effective music practicing is self-guidance. This strategy requires students to give themselves careful and conscious instructions while practicing. This “thinking out loud” method, involves self-questioning, giving directions/instructions to themselves, making explicit decisions, and constantly evaluating the results. It is a strategy that promotes higher-level meta-cognitive processes and seems to be a feature of highly self-regulated and successful students. Students with problems to concentrate and focus may greatly benefit by using this strategy.

Finally, alternating the practice of sections with complete renditions of the piece is necessary to achieve a holistic learning and develop endurance. Yet, it must be done preferably when students have learned the whole piece and have succeeded overcoming most of the musical and technical challenges (Swanson & Law, 1993).

### Observation and Evaluation of Practice

Although most students trust their ears and musical sense to evaluate and guide their practice, studies indicate some of them might not be aware of their mistakes, until they are confronted with their own playing. Furthermore, they may not evaluate their own performances as critically as they should and there is also the possibility that they become too harsh with themselves (Daniel, 2001). For that reason, the dimension of self-evaluation of practice is, perhaps, the most important of the learning process since it determines the conditions for the resumption of the process.

Therefore, it is crucial that students implement effective strategies to evaluate their own practice, such as video-recording and audio-recording themselves. According to various empirical studies, these self-evaluation strategies help students to determine how much they have improved and guide them to select the most appropriate strategies to overcome the technical-musical challenges (Hallam, 2001; Silveira & Gavin, 2015). At the same time, the use of these strategies sharpens the student's self-assessment criteria (Daniel, 2001), and promotes reflection on the learning process (Boucher et al., 2017). Nowadays, most students have cellphones with video and audio recording applications as well as communication applications like *WhatsApp* to get in constant touch. Thus, there is no reason to wait until the next lesson, when students can send their teachers a videoclip to get their feedback concerning how to practice a passage that is giving them problems.

Audio-recording and video recording, as self-assessment strategies of high metacognitive level, may be complemented with peer tutoring. The strategy requires a student to ask friends or classmates to listen to his/her performance and give him/her feedback. This strategy not only implicates testing in front of peers how well he/she knows a piece, but also reveals his/her interest to know the level of interpretation quality. Students can go beyond and request some help and guidance from advanced students. According to Sheldon, peer tutoring contributes to achievement, develops problem-solving skills and facilitates understanding among students (Sheldon, 2001). Moreover, peer tutoring not only helps the tutee to improve but also improves the level of the tutor (Alexander & Dorow, 1983), which represents a very desirable outcome since, in the future, that student will most probably become a music teacher and will need that experience and knowledge.

Finally, a checklist of goals to achieve for each practice session is a highly effective strategy, since it promotes reflection and encourages metacognition (Cremaschi, 2012).

### CONCLUSION

The great Polish composer Ignaz Paderewski once said, “the very essence of success is practice.” However, from the author perspective, the ideal is to do it by implementing practice strategies whose effectiveness have been tested in rigorous research studies or have been proved by experienced teachers, so students may have more effective and productive practice sessions, whose results may be reflected on the

stage, during auditions, in competitions, and so forth and contribute to raise their musical level, their sense of self-confidence and their competitiveness.

Effective practice may lead to an increment in practicing and, consequently, to a faster development of practicing skills, creating a “virtuous circle” that promotes musical growth and achievement (Hallam et al., 2012). However, although, there is a substantial amount of empirical research on this important topic, many students are not aware of research results and ignore practice strategies that may help them to have a steady musical growth. Thus, teachers must have a good “repertoire” of effective practice strategies and based on their knowledge and experience, must recommend the best ones for their students to learn the pieces and overcome the technical-musical difficulties. Then, gradually, teachers must encourage them to develop a metacognitive attitude, so they learn to teach themselves, regulate their own practice, identify challenges, seek adequate strategies to address specific problems, evaluate themselves and adapt or modify their own practice to improve. According to Vispoel and Austin, students who believe they have failed because of the use of poor learning strategies, anticipate having a better performance in the future by selecting better strategies and doing a stronger effort (Vispoel & Austin, 1993).

Finally, teachers need to have a more complete understanding of their role in the training of their music students, so they can become independent learners, overcome the musical challenges and become what they are meant to be: music students equipped with the necessary tools to succeed.

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