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If You Can't Teach Yourself, No One Can

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Abstract

This paper explores the vast potential of self-directed learning in violin pedagogy. Based in practice and drawing on concepts from neuropsychology, the author, a violinist and teacher, outlines five learning principles. Self-directed learning is defined as an ongoing process based on problem detection, definition, and resolution. The traditional roles of teacher and student are reimagined within this context. A step-by-step guide to applied self-directed learning suggests a model for both teachers and students that realizes student independence in the classroom, leading to higher-level understanding and more robust performance. While the value of self- directed learning is well-known in general pedagogy, this paper is novel in applying the approach to the study of musical performance, a field which is currently dominated by habit and folklore, rather than informed by science.

Keywords — neuropsychology and musical performance, self-directed learning, strategic problem solving, violin pedagogy.

I. A INTRODUCTION

s the field of musical pedagogy progresses, new questions about agency in teaching and learning arise. Can students assume more agency in their lessons? Are they able to take more responsibility for their own learning? How might teachers encourage students to take an active role in the classroom? Can the student and teacher collaborate as a team to maximize a lesson's potential?

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Through the author's independent research based in teaching practice, it is apparent that students can often apply teacher- provided solutions to technical and musical problems successfully, but are frequently unable to rely on their own judgement and problem-solving skills. Seeking solutions, the author began to explore ideas being discussed by today's most innovative educational psychologists, including Dr. Robert Sternberg, who generously had many conversations with the author on this topic. It has become clear that there is an absolute need for educators to teach their students how to become self- directed learners. This paper asserts that self-directed learning has an unprecedented impact on learning.

II. THE 5 TEACHING PRINCIPLES WHICH ENCOURAGE THE DEVELOPMENT OF SELF-DIRECTED LEARNING

1. Learning Should Be Primarily Self-Directed

Although providing concrete solutions to a particular challenge or problem may advance learning marginally, this approach is not likely to give learning much longevity. Students absolutely need professional expertise, but drawing conclusions exclusively from a teacher's input limits the student's involvement in finding his/her own solutions. It also fosters the dependency of a teacher, and enables passive learning. For example, providing stock answers to "How?" questions (such as "How do I make my sound less scratchy?") gives student little agency in the learning process. They might be able to follow directions, but likely will not understand why those directions were prescribed; the student's learning is thereby determined externally. If students are unable to answer "Why?" questions for themselves (for example, "Why do I sound less scratchy when I do what my teacher says?"), it is increasingly difficult for them to improve on their own.

Self-directed learning not only nurtures a deeper understanding of the subject, but also generates independent thought, which ultimately boosts productivity. The emphasis of teaching how to find a solution rather than teaching a solution itself enables students to develop their own exercises and strategies in practice. It teaches them how to detect the underlying variables that bring a problem or challenge into plain sight.

2. Self-Directed Learning Is an Ongoing Process of Finding and Solving Problems

During the teaching process, instructors are usually responsible for observing, detecting, defining, and resolving their student's problems. Self-directed learning, however, is based

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on the idea that students, by adopting a more teacher-like role, can develop the skills needed to detect and solve problems on their own. The discovery process that accompanies problem-solving has irreplaceable value, and fosters a thorough understanding of not only the instrument itself (the subject of learning), but also the player (the learner), and the manner in which they interact. By teaching how to detect and define problems and how to strategically resolve them, teachers can guide students towards successful independent learning.

3. Finding Problems Requires Both the Recognition and Definition of the Problem

Students must develop observational skills and self- awareness as an integral part of self-directed learning. Because most students are largely accustomed to teachers correcting their mistakes, they often lack the ability to define problems on their own. Sometimes, the existence of a problem goes completely unnoticed. For instance, students simply may not realize, therefore not notice, that they are playing out of tune or with poor tone. Once they are trained to observe their own behaviors, the instrument's behaviors, and the interactions between their body and instrument, students will be able to make a clearer assessment of their playing.

Teachers can help students develop self-awareness by teaching practices such as body-mapping or mindfulness alongside their instrument. Educators can also teach observational skills by modeling. For example, the teacher could play a passage multiple times with varying qualities in tone production, so that students have a clear comparison from which to observe how the teacher changed his/her sound. Encouraging the use of supplemental learning materials, such as recording devices or notebooks, gives students the chance to observe and re-observe their own performance.

4. Solving Problems Requires Both a Wide Selection and Monitoring of Possible Solutions

Once able to clearly recognize and define problems in their performance, students are then ready to implement a strategic resolution process. In a conventional setting, the instructor would be responsible for this. However, with self-direction, students can search for possible solutions after assessing their own performance themselves. In the same manner that a teacher would try to solve a given problem by approaching it from different angles, the self-directed student would develop a variety of problem-solving strategies ready for experimentation on the instrument. The student and teacher then monitor their efficacy together. The cause of the problem will reveal itself naturally as possible solutions that prove ineffective are eliminated.

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5. The Teacher and Student Are Collaborators

Traditional pedagogy has manifested generations of students dependent on external critique (i.e. the teacher) to help develop their skills. In order to develop skills independently, teachers must move from this antiquated role to one of facilitating the solution-finding process. By serving as role models of self- directed teaching, educators will help students hone their own individual learning processes. Ultimately, they will be trained to be more aware of their bodies and instruments, to become critical thinkers, and step out of their passive learning role. Rather than following, they will take the lead and be their own teachers.

With this approach, the student and teacher together will learn equally from each other: the teacher as an advisor who provides guidance and insight, and the student as a creator of new ideas and approaches. The relationship between student and teacher will be a co-teaching arrangement where the student is the primary teacher, and the teacher is a guide towards the student's complete autonomy.

III. SELF-DIRECTED LEARNING IN APPLICATION: A 7-STEP GUIDE

Through practice, the author discovered that self-directed learning is a practical, feasible goal, and not just an ideal. It is important to note that self-directed learning does not invalidate the importance of student-teacher interactions. Although students will ultimately become independent learners through the use of this guide, teachers still serve a vital role. They must help students navigate through their own learning by modeling in the classroom and onstage until the need for a teacher no longer exists.

The self-learning model requires these seven steps.

Step 1: Recognize that a Problem Exists

In this first step, the student acknowledges an inconsistency or problem in his/her playing. The simple realization that something seems "off" is enough to move forward.

Step 2: Describe the Problem

Once the student notices a problem, he or she must find ways to describe the problem more precisely, perhaps by collecting a number of adjectives (for instance, "My sound is pressed, tense…").

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Step 3: Consider the Problem's Context

After describing the problem in detail, the problem's context must be assessed. This context, including visible, audible, and tactile conditions, reveals useful information about why the problem might exist. In order to properly consider this context, the player needs to practice in ways that enable self-reflection, perhaps in front of a mirror, or with audio/video recording for future reference.

A better understanding of the student's mental, emotional, or physical condition can also reveal a lot about any given problem's context . Shifts in mental or physical health, such as temporary stressors or a bad night's sleep, should be noted.

Step 4: Question What Might Be Causing the Problem

After considering the problem's context, the student will be able to make a clearer assessment of the problem itself. For example, while watching the video recording of a practice session, a student might reflect, "Oh, I'm hunched forward," or "I'm not breathing while playing." Other thoughts might include, "I'm standing too close to the wall," or "I seem distracted by the people walking outside my practice room."

Questioning all of a problem's possible causes also allows students and teachers to find more effective solutions. Furthermore, any given problem could have one or several causes that need considering.

Step 5: Find Possible Solutions to the Problem

Once a problem is recognized, described, and carefully considered within its context, the student can start finding solutions. Since a problem can be caused by more than one factor, the student must find solutions that cater to each one individually. It is important to note that these factors also interact. This guide refers to five example search fields which help self-directed learners organize their experimentation. Teachers must further invent new search categories with respect to the activity in question.

Following is a list of each search field, contoured to a student's hypothetical attempt at making a less scratchy sound.

- Category 1 - Imagination: What can I imagine to help make my sound less scratchy?

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  - Example 1: I imagine standing on the beach, feeling a light breeze.
  - Example 2: I am imagining the color yellow.

- Category 2 - Preparation: How can I prevent my sound from being scratchy?
  - Example 1: I can breathe deeply and avoid any physical tension before playing.
  - Example 2: I can prepare a peaceful and relaxing practice environment by using comfortable lighting and aromatherapy.

- Category 3 - Physicality: Are there physical exercises that I can use to make my sound less scratchy?
  - Example 1: I noticed my shoulders are tense…I will move them in circles while playing.
  - Example 2: I saw my index finger pressing onto the bow…I will tap the bow with it as I play to keep it moving.

- Category 4 - Exaggeration: How can I make my sound scratchier?
  - Example 1: I will press the sound as much as possible and see where the pressure comes from.
  - Example 2: I will remove three fingers from my bow and try to apply pressure.

- Category 5 - Emotion: How might I change the way I feel so as to influence my sound?
  - Example 1: I smile widely as I play.
    Example 2: I think of someone I love.

The student can now experiment with these possible solutions.

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Step 6: Monitor Each Possible Solution's Effectiveness

In order to determine which solutions are fruitful and which ones are not, it is important to monitor the solution-finding process through documentation. A simple notebook is enough for this. The structure of one's notebook can be very personal, and could range from something very simple (such as: What worked? What didn't work?) to something more involved (for example: Solution 1: Expectations, Outcome, Goals for tomorrow).

The purpose of this documentation is to accumulate a large number of possible solutions for the same problem; that way, the learning has more longevity.

Step 7: Evaluate Each Resulting Outcome

After testing each possible solution, the student will most likely improve and thus continue onto another problem. Before moving on, however, it is important for students to look back at the learning process and summarize the most effective solutions for future use.

Conclusion

Encouraging self-help is not an unfamiliar concept to most, though in violin pedagogy, this concept has hardly been developed. Although professional guidance is necessary for certain stages of musical development, students often rely exclusively on external support. By teaching the process of detecting and resolving problems inherent to violin-playing, instructors can guide their students to teach themselves. Learners of all backgrounds can apply it to their individual practices.

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