



TECHNOLOGY

App for Athletes Makes Students Their Own Best Teachers

by Levi Comstock

Have you ever had a student who put in the practice time and wanted desperately to improve, yet seemed to be spinning their wheels? Have you ever been that student?

I was one of those late bloomers when it came to vibrato. I gripped, I squeezed, I shook my viola, my arm, my bow, and everything else in the room except for my finger. When that didn't work, I tried the same thing, but harder. For a long time, I quite unfairly blamed my otherwise very supportive father, whose jokes about giant mosquitoes discouraged me from practicing slow oscillations as my teachers recommended. But even slow practice was fruitless for me until I understood the mechanics of the motion. Developing that fluidity took multiple teachers and patient friends slowing down their own vibratos for me to analyze and copy.

The great news is that technology has once again made such patient friends entirely obsolete! That is a lie; we obviously still need to mooch off of their music, pencils and rosin during rehearsals. But when it comes to slowing down and breaking down subtle movements in string playing, a genre of apps designed for athletes can help our students to practice smarter.

Slowmo, or any of a dozen other apps like it, will allow you to slow down a video taken on your phone and add graphics and commentary as you analyze the movement in the clip. Whether you are watching the way the fingers flex during a bow change, looking for the pivot point in a spiccato stroke, or trying to figure out where your vibrato is getting stuck, this app makes it easy to see exactly what is moving, in which directions, and how much. You can even play your clip side by side with another clip, whether of a master example or of yourself a week ago to see if you have improved. You can draw a line or a circle to show where a limb or a finger started, then advance a fraction of a second to see how far it has departed from its origin. You can watch the video back a frame at a time, in slow motion, full speed, or even accelerated.

Versions of this app can be found for any handheld device, tablet or computer. Some allow you to create accounts for each student so that they can easily share their videos with you and track their progress over time. The biggest drawback is that most of these apps do not allow you to hear the sound in slow motion. If this is important to you, you can try importing

a clip into iMovie, which is also available for all handheld Apple devices and tablets.

This kind of analysis takes time, but in some cases it is what students need to get “unstuck.” For those students who even after four years of playing insist they do not need a shoulder rest, or that their collapsed hand is “more comfortable” than the hand position that you prescribe, this can be a way to change the conversation and place the ownership back on them.

As string players, we are fortunate to be able to see the mechanics of our art out in the open. If we get in close, we can break down every movement into the hinges, pivots, and contact points that set our bows and fingers dancing across the strings. A motion analysis app is a great way to involve your students in this pedagogical process and empower them to become their own teachers.

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