# Cello

## *Intelligent Music Teaching*: A Book Review

by David Holmes

Intelligent Music Teaching, *by Robert Duke. Copyright 2005 by Robert Duke and published by Learning and Behavior Resources in Austin, Texas. 176 pages.*

Robert Duke is Head of Music and Human Learning at The University of Texas at Austin, where he is a University and University of Texas System Distinguished Teaching Professor, a Distinguished Fellow in Teacher Education, and Director of the Center for Music Learning. He is the founding director of the psychology of learning program at the Colburn Conservatory of Music in Los Angeles. His most recent books are *Intelligent Music Teaching: Essays on the Core Principles of Effective Instruction*, and *The Habits of Musicianship*, which he co-authored with Jim Byo of Louisiana State University, and *Brain Briefs*, which he co-authored with Art Markman, his co-host on the public radio program and podcast *Two Guys on Your Head*, produced by KUT Radio in Austin.

On several occasions, I have heard Robert Duke speak at Suzuki Association of the Americas conferences and have enjoyed his dynamic public speaking abilities and have learned some things about teaching and about music research. His book, *Intelligent Music Teaching: Essays on the Core Principles of Effective Instruction*, is profound, thought-provoking, and especially useful and important to music teachers who wish to improve their teaching skills. When I went through this book a few years ago, so many things resonated that I underlined much and added many comments in pencil in the margins. Here are the titles of his essays in *Intelligent Music Teaching*: *Precision in Language and Thought, What to Teach, Assessment, Sequencing Instruction, Feedback, Transfer, Effecting Change*, and *A Teaching Life*. This review will focus on several of these essays.

Robert Duke believes in quantifying through research and assessment the success or failures of music instruction. He defines learning very succinctly as, "a change in what students demonstrate in terms of knowledge, skills or attitude," and that, "Teaching is that which causes learning" (p. 13). The question, then, is how do you know if the actions a teacher engages in with a student are actually effective in teaching the student? Just because it looks like a teaching scenario—student and teacher interacting together—does it mean that the student is learning what the teacher means for her to?

In the chapter on *Precision in Language and Thought*, Duke points out that rigorous evaluation of music instruction, unlike most other disciplines, has been lacking. The outdated model that teaching involves filling students' minds with knowledge is now dead; students need to be doing something in order to learn (p. 14). Further, he writes, "student learning is not a matter of what teachers say, but a result of what teachers have students do" (p. 102). He notes that learning about how to teach won't make a good teacher, since the competency of a teacher occurs only through the act of teaching. Becoming an expert teacher takes a number of years of intensive teaching, and as we all know, is a difficult and complex field to master. For those who believe that teaching is too vague an art to define, Duke counters that, "there do exist underlying principles of artistic performance in any realm, and those principles are identifiable, explainable, understandable and learnable" (p. 19). Duke argues strongly that teachers need to spend time learning to express themselves precisely about their teaching, and that "the words we use to describe what we experience influence our perception and our thinking" (p. 22).

In his essay *What to Teach*, Duke enumerates a number of "component skills of intelligent musicianship," which are lists of expected behaviors that apply to both the youngest and most experienced musicians. These component skills are now part of the Suzuki Association's requirements when applying to become a teacher trainer. Here are a few of the 16 string instruments skills listed:

1. Assumes posture that is erect and relaxed.
2. Holds bow firmly but with relaxation and flexibility.
3. Assembles instrument correctly (e.g. end pin, shoulder rest, bow hair tightening).
4. Draws bow perpendicular to the string. (pp. 42-3)

He also includes under "performance skills" *social behavior in musical settings*. Under *psychomotor skills/performance technique,* Duke includes thorough descriptions of Tempo/Rhythm, Intonation/Tone Quality/Articulation, and Dynamics/Balance. These lists (pp. 39-49) are clear, concise, and thorough and are worthwhile for any teacher to investigate in depth.

On *Assessment*, Duke argues convincingly that evaluating students' progress at the end of a period of learning is common but not helpful. Instead, when designing a lesson plan, for instance, he reasons that one should be thinking about assessment from the beginning and continue to think about it as the teaching proceeds—that assessment is part of the teaching process (p. 53)

The essay *Sequencing Instruction* raises many crucial ideas for string teachers and points out how important it is what we do when with a student. Duke has 6 broad categories for this section (pp. 92-119)

*1. Where to begin:*

He encourages "starting from scratch every day" (p. 93) to avoid pushing a student ahead before they have mastered a skill. This fosters accurate repetitions and students can successfully perform what is being asked of them.

*2. Small approximations:*

"The path from the starting place to the instructional goal may be best described as a series of successive approximations that incrementally approach the target goal" (p. 98). This section has some simple but effective graphs that get across the point of the

priority for teachers to design artful mini-steps for each skill a student is intended to master.

*3. Include only essential information:*

Avoid unnecessary explanations. Boil down a presentation to just what gets the student to achieve the desired goal (p. 102). Superfluous talking can detract from a student's learning.

*4. Each step is an approximation of the end goal:*

"Learning efficiency is maximized when all of the elements of the skills are introduced and practiced in contexts that are as much like the final goal as possible" (p. 108). Duke mentions in this section that the way many of us introduce the bow to a student by engaging in vertical movements without the instrument (Up Like a Rocket, anyone?) is, he thinks, not at all related to the eventual goal of having a student pull the bow on a string. In other words, it might be a step that doesn't lead seamlessly into early bow skills at the instrument.

*5. Inch forward—leap backward:*

Duke says that teachers don't jump back far enough when a student is having problems with a new skill. By returning quickly to skills students know well, it can avoid frustration and failed attempts at the new skill. This improves the success to failure ratio, which is a good thing.

*6. Multiple correct repetitions at each step:*

We all believe in this! What we do with students in lessons should mirror what we want them to do at home by modeling, not by talking.

**Other Interesting Thoughts**

- "Teachers control the extent to which students succeed in every instructional setting" (p. 89). This means we carry a heavy responsibility of presenting new skills in ways that make students successful.
- Great teachers seem to know what, when, and how to teach so that students succeed moment to moment (p. 90).
- When confronted with a student performance with many problems an expert teacher will: "formulate decisions about what-to-teach-now on the basis of (1) the importance of each incorrect aspect of the student's work in relation to (2) its potential effect on the student's overall performance and (3) the probability that the student is actually capable of effecting a positive change in the short term"(p. 91).
- There are many ways to teach a complex task, but it is essential that it be broken down into manageable steps that ensure the highest probability that students will be successful at doing what is being asked of them.
- To avoid constantly correcting problems in students' playing in lessons, Duke believes in making sure fundamentals, through repetition, build up what he calls "habit strength." This approach enables a student to succeed in performance, instead of failing and then having to be "fixed" by the teacher. He mentions that no teacher enjoys lessons that are dominated by a student's mistakes, and that no student enjoys rehashing skills that they thought they had already learned (p. 97).
- In the *Sequencing Instructions* essay, Duke points out that teachers often explain much more than they need to when introducing a new skill to a student and that this often obfuscates the point the teacher is trying to make by not including only the essential information to the student (p. 102).

There is so much "good stuff" in Robert Duke's book, and it so clearly and powerfully written. It has been a great shot in the arm for me, as it challenged some of my ideas and clarified others. I heartily recommend it to all.

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