

Nine Tips and Tools for Improving Student Performance in Freshman Music Theory

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For over thirty years, I have attempted to teach music theory to academically diverse college students who bring varying levels of motivation to the classroom. Ensuring that students master the objectives of our theory sequence is no small task, and I often have said, “I feel that I earn my whole year’s salary when I teach brand new students for the first few weeks.” Injecting high levels of enthusiasm into the classroom and setting rigorous expectations requires enormous pedagogical effort. My job is to overcome the inertia that many students have and to replace it with an attitude of enthusiasm and rigor. If this attitude transformation is not achieved, the students will still struggle with the basic materials of music even after completing a four-semester sequence of music theory studies.

As an instructor, I think of music theory as being divided into two components: (1) skills that must be mastered so there is no hesitation, and (2) thinking processes that do not necessarily require speed. For example, I believe that students should be able to spell major triads quickly and accurately; however, I do not believe that first-semester students need to be able to work out an eight-measure figured bass in two minutes or less. I often tell students, “If it takes you a long time to spell a major triad, it will take you an eternity to complete a part-writing exercise!”

This article is divided into three sections: (1) In the Tools for Fluency section, I present three teaching tools that help students learn information that can be recalled quickly and with precision. (2) In the Tools for Thinking section, I present four teaching

tools that have increased my efficiency in imparting certain aspects of theoretical information. (3) In the Tips for Transfer section, I have included two ideas that help our students begin to understand how the various strands of music theory come together to form something that can enrich their personal musical lives.

Tools for Fluency

The Speed Quiz: Setting Expectations

Like other academic subjects, there are certain aspects of music theory that must not only be understood, but they must be able to be recalled quickly and accurately in order for students to perform well. In describing certain tasks recommended for elementary students studying language, Donald Bear says,

Work for automaticity. Accuracy in sorting is not enough; accuracy *and* speed are the ultimate indicators of mastery. Acquiring automaticity in sorting and recognizing orthographic patterns leads to the fluency necessary for proficient reading and writing. Your students will move from hesitancy to fluency in their sorting. Keep sorting until they do.¹

As if reading from the same playbook, Michael Rogers describes the importance of learning the basic materials of music with fluency.

Fundamentals study occurs in three stages: (1) understanding the concept behind a topic . . . (2) developing accuracy through practice; and (3) developing speed. The culminating goal at this third level is *fluency*—a smooth and instant melding of comprehension, precision, and quickness so that the desired information is always confidently at one’s fingertips.²

This “need for speed” is again echoed by W. Francis McBeth.

Every student that I have had who had trouble with theory was weak in fundamentals, fundamentals being thinking in keys, building intervals and chords, etc. I have never had a student who was strong in fundamentals

¹ Donald Bear et al., *Words Their Way*, Fifth Edition (Boston: Pearson, 2012), 90.

² Michael R. Rogers, *Teaching Approaches in Music Theory: An Overview of Pedagogical Philosophies* (Carbondale, IL: Southern Illinois University Press, 1984), 36.

and weak in theory. Speed in fundamentals is imperative. Theory study is like building blocks—no one block can be omitted or skipped.³

Knowing the power of expectation and its positive impact on student performance, I enjoy performing an opening day ritual the first day of Music Theory 1 every year. The class is asked to stand, and we begin orally drilling the major triads. At first, I ask the class to spell simple triads, ones that most of them know well. When I say, “C major,” they respond, “C, E, G.”

During this time, I encourage the students to speak with both confidence and volume as I rapidly move from one chord to another, frequently reviewing chords and adding new triads to the mix. After a few minutes of high-intensity drilling, I ask the students to take out a sheet of paper and number it from one to ten. I explain that we will have speed quizzes in the class every Monday and Friday, and that I want them to understand exactly how they will be administered so there will be no surprises at all.

The rules are simple. (1) No questions will be repeated at the end of the quiz. That is, no student will be allowed to ask, “Would you repeat Question #4 once again, please?” (2) At the end of the quiz, I will say, “Pens down.” This signals the end of the quiz, at which time students should “slam” down their pens. Students who continue to write after this announcement may not submit their quizzes. (3) Every answer is either completely right or completely wrong. If students are asked to spell the C major triad and they write “C, E, A,” the question will be marked wrong. Students are not given partial credit because they correctly wrote two of the three notes of the chord.⁴

³ W. Francis McBeth, *Helpful New Ideas for the Understanding of 18th Century Harmony* (San Antonio: Southern Music, 1979), 45.

⁴ Regarding this topic, I am in complete agreement with Melissa Hoag who, as she describes the rigor necessary for mastering the rudiments of music, says, “there is no partial credit, for instance, for a key signature where a sharp is only approximately located where it should be, even if key signatures

At this point, I give a quiz, randomly selecting 10 major triads. I do my best to convey a sense of urgency, announcing the questions energetically and giving the questions quickly. Typically, the entire quiz takes about one minute. Allowing the students to grade their own papers, I give the answers and then say, “Now you know **exactly** what to expect of the quiz you will be given at our very next class meeting.”

During the course of the first year, we constantly drill the basic materials of music, gradually adding more items to the question pool, but never making the quiz longer than ten questions. Though the topics are not necessarily presented in this order, the following topics are drilled during the course of the year:

Major triads

Minor triads

Diminished triads

Augmented triads

Major-minor seventh chords

Major scales

Scale degree names

Sample question: What tone is the dominant of F major?

Key signatures

Sample question: This major key has four sharps.

Intervals

Sample question: What is the interval from F up to B?

Cadences

Sample question: This cadence ends on V.

Figured bass

Sample question: This is the figured bass symbol for a triad in second inversion.

Basic part-writing terminology

Sample question: More than an octave between the soprano and tenor.

are brand new for the student. It must be accurate or it is wrong. Melissa Hoag, “Seven Strategies for Enabling Student Success in the First-Year Music Theory Sequence,” *Music Theory Pedagogy Online* 2 (2013): 9, accessed March 21, 2014, <http://jmtp.ou.edu/ejournal/seven-strategies-enabling-student-success-first-year-music-theory-sequence>. And in describing the skills students need in order to succeed in more advanced levels of music theory, Carissa Reddick describes the need for “instant accuracy.” Carissa Reddick, “Teaching Analysis of Chromatic Chords Through Chord Qualities,” *Music Theory Pedagogy Online* 2 (2013): 3, accessed March 21, 2014, <http://jmtp.ou.edu/ejournal/teaching-analysis-chromatic-chords-through-chord-qualities-0>

Doubling in four-part writing

Sample question: What is the best tone to double in a six-four chord?

Combination questions

Sample question: What is an augmented second higher than the mediant of F?

Obviously, there is much more to teaching music theory than teaching students to obtain fluency in the basic materials of music; however, if students do not know this material thoroughly, they cannot succeed at the more complex tasks of part writing and analysis. In my experience, constantly drilling the basic materials of music is part of what enables students to do well. Many of my students have commented that the basic drills and the speed quizzes, though sometimes annoying, ultimately gave them confidence they needed to be successful.

The Computer Quiz: 100 or 0

In another effort to push students towards fluency and mastery, some computer quizzes are announced as 100 or 0 quizzes; that is, students who perfectly master a prescribed level will receive the grade 100, and those who do not will receive the grade 0. No other grades are assigned.

In our institution, 100 or 0 quizzes are most commonly given in our first semester theory quiz.⁵ The number of students in the class sometimes exceeds 25, but the number of available computers is only 25. To begin, 25 students are seated, and I stand in the back of the classroom where I can see all 25 monitors.

⁵ 100 or 0 quizzes are also given in our third semester course when augmented sixth chords are presented. Our computer program divides these into four separate levels, Italian sixth chords, German sixth chords, French sixth chords, and doubly augmented fourth augmented sixth chords. Because the Italian sixth chord is the framework for all the traditional types of augmented sixth chords, I find that drilling on this chord is especially useful.

Using the *Chord Doctor* software, students are instructed to select the assigned level and to set the timer.⁶ For example, I will say, “Pull down to Level 1, and set the timer for six seconds.” In this instance, Level 1 consists of spelling 13 different major triads.⁷ A sample question is, “Spell the C major triad.” Students respond to this question by clicking on the image of a keyboard. If they choose an incorrect note or if their response takes longer than six seconds, a notification at the bottom of the monitor says, “Sorry! The correct answer is . . . “ When students receive this notification, they are instructed to leave their seat and to move to the perimeter of the classroom.

Within these parameters (13 questions with a maximum of six seconds per question), the longest a quiz may take is 78 seconds. At this point, I assign the grade 100 to the students who have been successful, and the second group of students is seated. Typically, 100 or 0 quizzes take about five minutes of our class period.

In our institution, there are two separate computer labs equipped with the software, so students have easy access for practicing outside of class. In addition, students who wish to do so may buy the program for their personal computers.

In evaluating the effectiveness of this approach, I have found that listening to the student chatter is important. Of course, I hear a bit of grumbling as students say, “I had it perfect yesterday, but I blew it just now.” More commonly, however, I hear statements like, “You *really* have to know it for these quizzes, so you have to practice a little more than you might think.”

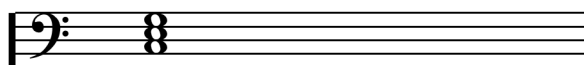
⁶ *Chord Doctor* is available from chorddoctor.com under the resources tab. Additional excellent software choices are also available from theory.net and teoria.com.

⁷ In the *Chord Doctor* software, Level 2 presents the remaining major triads.

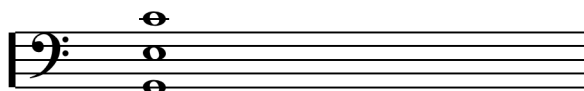
Re-Ordering: Scramble, Unscramble

It is important to think of the cognitive processes going on in our students' heads while they think about music. For example, it is one thing to spell a chord (for example, the C major triad is C, E, G), and it is another thing to recognize the chord when the notes appear in a random order. Note the following example:

Students might be able to recognize
the C major triad in normal order.



But they might not be able to recognize
the chord when the tones are distributed
in this order.



In order to help students explicitly understand that the process of identifying chords is a process that requires them to re-order information, I sometimes play Scramble, Unscramble. I begin by giving an example, saying, “I scramble; you unscramble. If I say, E, G, C, you say C, E, G.” Then I present a series of chords that the students unscramble. As a variation, I sometimes say, “If I say, E, G, C, you say C major.”

By using the Scramble, Unscramble method as a classroom drill while the students are first learning the rudiments of music theory and before they begin musical analysis, I lay a mental groundwork for them. After this, it seems a little easier for them to recognize chords when they analyze music. In some cases, I even give them worksheets that use informal instructions like “Unscramble these chords and then label

them with chord symbols” instead of more formal requests like, “Identify the following chords.”

Tools for Thinking

Chord Hunt

Following the lead of Donald Bear who, in word study instruction, asks students to search texts to locate words that contain the features that have been presented in class, I ask students to search for examples of the kinds of chords we have recently discussed.⁸ For example, if we have introduced chords in first inversion, I might say, “Browsing through a hymnal, select five hymns and circle every first inversion triad that is used.” This is different from having them analyze a musical composition because they are not identifying all the chords; they are simply “on the hunt” for a particular type of chord. Pinpointing students’ attention to particular aspects of music deepens the students’ ability to observe the elements of musical compositions.

Reading with Meaning: Comprehension vs. Letter-By-Letter

I made an effort to give students a vision of what it means to read music. In order to accomplish this, I write a random sentence on the board. Let’s assume the following sentence is on the board:

Music theory is my favorite class.

Having written this, I ask the class, “Do you know how to read?” Often, they look at me with great puzzlement because their assumption is that anyone who is a college

⁸ Donald Bear et al., *Words Their Way*, Fifth Edition (Boston: Pearson, 2012), 65-7.

student would know how to read, and they wonder what kind of trick question I am posing. Then I call on a particular student. “Pat,” I ask, “you know how to read don’t you? Why don’t you read for me the sentence that is on the board.”

The student reads, “Music theory is my favorite class.”

Then I pretend to be annoyed and say, “Oh, no. You have it completely wrong. Here is how to read the sentence: capital m, u, s, i, c, space, t, h, e, o, r, y, space, i, s, space, m, y, space, f, a, v, o, r, i, t, e, space, c, l, a, s, s, period.” Typically, the students begin to chuckle, and I feign confusion, saying, “What is wrong with my reading? Why are you laughing at me?”

This then leads into a discussion of reading music. I hastily put an example on the board, perhaps something like the one that follows.



Then I say, “But many people see music like this and, considering each chord from the bottom up, they see C, C, E, G, F, C, F, A, F, A, C, G, double-stemmed G, B, D, G, B, D, G. Now this isn’t all bad. Good teachers often consider what is present and what is absent in their students’ work.⁹ What is present here is that the person who reads this way has the ability to correctly identify notes in both the bass clef and the treble clef, but what is absent here is that the student is not seeing ‘musical words’ or chords. When

⁹ Ibid., 98.

readers of language see words, not just individual letters, their comprehension level increases. Likewise, when people who read music see chords, not just individual notes, their musical comprehension increases.”

At this point, I ask all the students to put down their heads, saying, “I am going to write something on the board. When I say, ‘Go,’ you will have exactly two seconds to memorize exactly what is on the board. Okay, put your heads down.” Then I write these words on the board:

I
to
to
the
want
store
go

“Okay, look! Now put your heads back down immediately! Can someone tell me what was on the board?” Of course, most students cannot memorize that random list in such a short amount of time, and they seem somewhat bewildered that I would ask them to attempt such a task.

“Class, now I want to try that again.” I’m going to put another list on the board and see if it is any easier.” At this point, I write the following list on the board:

I
want
to
go
to
the
store

When the students look at this list, they find it extremely easy to memorize the list in just two seconds. Then I ask, “How on earth was it so impossible for you to memorize the first list in two seconds, but it was extremely easy for you to memorize the second list? This is a mystery. Both lists contained the same number of words. In fact, both lists contained the exact same words. Why was the second list so easy?”

In short order, the students begin to understand the function of meaning. I stress to them that finding meaning does not make things harder; it makes things easier. Having done all this, I encourage them to explore the art of reading music. “You can learn to read musical words (chords) just like you can learn to read the words of language,” I say. “Reading is reading. Once you realize how you are supposed to be processing music and you practice enough, you can learn to read music.”

Of course, the ability to quickly identify a single chord is only a first step in learning more sophisticated conceptions of musical structure, but it is a very important step. Well-trained musicians understand music’s constant give and take between harmonic and contrapuntal dimensions; the impact of harmonic rhythm; and even the rather nebulous idea that the more clearly a structure is understood and anticipated, the

more it can be obfuscated by adding copious amounts of non-harmonic tones, or by merely being suggested instead of simply presented. But the fact that more complex ideas will later enhance students' musical understanding does not remove the benefits gained by helping them learn to identify chords instead of merely seeing a score as a collection of individual notes.

Filling Slots: Word vs. Phrase

The history of the connection between music theory and linguistic analysis is long. For example, in the 18th century, Mattheson wrote musical treatises that showed the connection between rhetorical analysis and musical analysis.¹⁰ As my students begin to work part-writing exercises with secondary dominants, I find it useful to teach the concept of a “slot filler.” I write a simple S-V-O-A sentence on the board.¹¹

Dana hit the ball there.

Knowing that many college students begin to panic at the very hint of grammar, I parse the sentence quickly and try to keep the mood of the classroom congenial. “*Dana* is the subject of the sentence, and *hit* is the verb. What did Dana hit? *The ball*, of course, so that is the object. Now what about this word *there*? Apparently, the writer wanted us to tell us something about where the ball landed, so the simplest adverb that could be found

¹⁰ For an English translation of one of Mattheson's works on these topics, see: Johann Mattheson, “Johann Mattheson on Affect and Rhetoric in Music (I),” trans. Hans Lennenberg, *Journal of Music Theory* 2, no. 1 (April 1958): 47-84, and Johann Mattheson, “Johann Mattheson on Affect and Rhetoric in Music (II),” trans. Hans Lennenberg, *Journal of Music Theory* 2, no. 2 (November 1958): 193-236.

¹¹ S-V-O-A stands for “subject, verb, object, adverbial.” For additional information on the analysis of clause types, see Randolph Quirk et al., *A Comprehensive Grammar of the English Language* (Edinburgh Gate: Longman, 1985), 49–59.

was used. It seems that the adverb *there* is filling the adverbial ‘slot’ in this S-V-O-A sentence.” At this point, we compare the sentence we just analyzed to the sentence below:

Dana hit the ball over the fence.

“Class, we have already looked at the part of the sentence that reads *Dana hit the ball*, but what is going on with the words *over the fence*? If my memory is right, the word *over* is a preposition; the word *the* is an article, and some grammarians consider all articles to be adjectives; the word *fence* is a noun.” As we consider the example, it does not take the students long to figure out that the words *over the fence* is a more elaborate method of expressing *there*, that *over the fence*—though it consists of a preposition, article, and noun—still adds up to something that can fill the adverbial “slot”; it is a prepositional phrase that acts like an adverb, telling us where the ball was hit. I strongly stress the idea that when we observe the phrase *over the fence* in great detail (the little picture), we see a preposition, an article, and a noun; however, when we observe the phrase *over the fence* from the viewpoint of how these words work in the sentence (the big picture), we see an adverbial phrase.

At this point, I say, “Just like our spoken language can fill a ‘slot’ with a word or with a phrase, our musical language can fill a ‘slot’ with a chord or with a chord progression.” Note the following example:

C: I vi ii₇ V I

This is a classic example of textbook harmony. Here the tonality is firmly anchored with a tonic triad at both the beginning and the ending of the phrase. The vi - ii - V - I progression, based on descending fifths, is perfectly predictable. As effective as this progression is, we must think that composers sometimes tire of such predictable music. A composer might ask himself, “What would happen if, instead of using an A minor chord, I used a short progression within the key of A minor? Right now, the A minor chord is filling a ‘slot.’ What if I filled that same ‘slot’ with a Dominant-Tonic progression from the key of A minor?” Note the following example:

C: I V/vi vi ii₇ V I

I explain to my students that the thought process here is similar to the two sentences *Dana hit the ball there* and *Dana hit the ball over the fence*. In music, we do not have prepositional phrases serving as adverbial phrases, but we do have ears that give us information about tonality. For example, if we *look* at the progression from the E

major triad to the A minor triad in the example above, it will *look* like the V – i progression in the key of A minor. But in a V – i progression, the i chord should sound finished; that is, it should convey to the listener a sense of finality and closure. In the example above, however, it hardly seems possible to perceive the A minor triad as any kind of finishing point or as conveying any kind of closure. So when we listen to the **sound** of these chords, we definitely still perceive a vi chord in the key of C major. Thus, the V – i progression from A minor is filling the “slot” that was filled by the vi chord alone in the previous progression.

Understanding this point of view can help students while they are doing part-writing exercises. Notice the example below:

C E Am Dm7 G C

----Am----

C: I V/vi vi ii₇ V I

Here, the part writing from the E major chord to the A minor chord is substandard. It can be helpful, however, to explain this to students using the following reasoning process:

1. The Roman numeral analysis shows us how the music sounds in the key of C.
2. The section between the staves that is labeled ----Am---- shows us the area where a progression from the key of A minor is filling the vi “slot” in the key of C.
3. While we are doing the part writing in this A minor area, we can pretend we are in the key of A minor. Doing so, we gain these insights:

- a. In the key of A minor, G[#] is the leading tone, and it is best not to double the leading tone. Thus, the chord progression should be rewritten.
- b. In the dominant chord, the leading tone tends to ascend when it is in the upper voice; thus, the G[#] should probably have moved up to A.

In the example above, students will benefit from considering this chord progression to be in the key of A minor while part writing. Just as the prepositional phrase *over the fence* fills an adverbial “slot,” the chord progression V – i from the key of A minor can fill the vi “slot” in the key of C major. In my experience, most college students easily understand the language analogy, and when they work with this information in mind, their part writing tends to be more elegant and musical.

This slot-filling illustration is a tool specifically designed to introduce students to the idea of harmonic syntax. And, just as understanding single feature of grammar such as a prepositional phrase does not fully equip students of language to become skilled writers, understanding this one specific idea of a chord might be expanded into a more complex progression does not give students an understanding of all that it takes to create an elegant chord progression. As students continue working with secondary dominants, some aspects of the history of music theory can be useful. For example, “Mozart would cite a key change for a single brief chord” where modern theorists would use the language of secondary dominants.¹² As students begin to encounter what it means to be in a key, the impact of commonly encountered chord progressions on defining key, what it means to modulate, how contrapuntal ideas impact harmony, and even how theorists often disagree about the best way to analyze a certain passage or composition, they will

¹² Joel Lester, *Compositional Theory in the Eighteenth Century* (Cambridge: Harvard University Press, 1992), 217.

be able to extend their thinking. But before they are exposed to a broad array of complex musical ideas, it can be beneficial for them to be exposed to the “slot-filling” idea.

Ten Times Two

I have often contemplated the question, “What must be going on in my students’ heads for them to be able to analyze music effectively?” Among other things, analysis requires observation, and the kind of observation that makes for effective analysis is penetrating, thoughtful observation, not the shallow, surface observation to which some students are accustomed. One thinking routine that is effective in helping students develop the mental focus and concentration required of a good analysis is Ten Times Two.¹³

In order to use Ten Times Two, distribute music to the students, give them several minutes to observe the score, and ask them to write down their observations as they work. At the end of the observation time, ask the students what they observed, and state that you are going to record ten of their observations.

Assign one of the students to be the class secretary who will write the students’ observations on the board, thereby making the thinking visible.¹⁴ If the students are new to the routine, it may be helpful for the instructor to go first, making a simple observation, one that assures the students that they may simply talk about what they saw, even if their observations were not especially profound. When all of this is done, say something like, “That was great. Now, let’s repeat that entire process again. We are going

¹³ Ten Times Two is a thinking routine taught in the online professional development course Making Thinking Visible offered through Harvard University’s WIDE World program.

¹⁴ For additional information on visible thinking, see Ron Ritchhart, Mark Church, and Karin Morrison, *Making Thinking Visible: How to Promote Engagement, Understanding, and Independence for All Learners* (San Francisco: Josey-Bass, 2011).

to look at this composition again, finding ten more items, not restating anything that has already been pointed out.” At this point, the students realize that they must increase their mental focus, drilling deeper into the score.

This routine helps students slow down and make careful, detailed observations by encouraging them to push beyond first impressions and obvious features . . . Quiet, uninterrupted thinking and looking time is essential to this routine . . . Don’t tell students beforehand that you will be asking them to do *another* round of 10.¹⁵

Recently, I used Ten Times Two with a small group of students, using a keyboard fantasia of Georg Telemann. The edition we used contained some archaic fonts in the title and some historical methods of music typesetting. The entire composition is just two pages long, and I gave the students four minutes to observe it. The opening measures of the fantasia are shown on the following page:

¹⁵ *Artful Thinking*, materials from the online course Making Thinking Visible: Building Understanding through Critical and Creative Thinking (September – December 2013), 11. WIDE World (Wide-scale Interactive Development for Educators) is a professional development program based at the Harvard Graduate School of Education.

Cembalo.

fantasia. Vivace.

No. 5



In an effort to make the students comfortable, I offered the first observation, saying, “I noticed that the old-fashioned long *s* was used in the word *fantasia* instead of the form of the letter we would normally use today.” At this point, the students began verbalizing their observations as the class secretary wrote these on the board. Their typical observations at this point were statements like, “I noticed the word *cembalo*,” “there were 32nd notes,” and “there was a strange symbol right beneath the word *fantasia*.”

When we finished recording our first ten observations, there was a palpable sigh of relief. Although the students did not say this out loud, their body language seemed to indicate, “Whew! I got through that without too much embarrassment.” At that point, I

announced that we would repeat the entire process. The students seemed surprised, and one spontaneously said, “I’m going to have to really think hard to find ten **more** observations in this piece!”

During the second round of observations, the students had deeper insights into the first movement of the fantasia, and they noticed the second movement more. The second movement is shown below.

Largo.

The musical score is for a piece in 6/8 time, marked *Largo.* It consists of two systems of five measures each. The first system begins with a treble clef and a key signature of one flat. The second system begins with a bass clef and a key signature of one flat. The notation includes eighth notes, quarter notes, and chords. There are plus signs (+) above some notes in measures 2, 4, and 6. The piece concludes with a double bar line and the instruction "D.C." followed by a repeat sign.

One of the first observations during the second round was that there was undoubtedly a connection between the symbol at the end of the second movement and the symbol at the beginning of the first movement, and then the observations became more penetrating. “The bass during the first movement is never-ending eighth notes moving as a melody, but the bass at the beginning of the second movement has solid chords.” Students detected the parallel tenths between the first note of the treble figuration and the bass part that begins during the last two beats of m. 6 and continues in m. 7.

Having observed this, they noticed the slightly more concealed parallel tenths between the treble and bass parts starting in the last half-beat of m. 4. One student saw that the bass eighth notes in m. 1 were beamed in groups of four, while the first four eighth notes of m. 2 were beamed in groups of two. She wondered if the edition reflected Telemann's beaming and whether the beaming was somehow related to how often the chords changed. One student pointed out the difference between "real" and "fake" motion. He called the last four eighth notes in the bass of m. 1 "real" because they were going somewhere, but he called the first three eighth notes in the bass of m. 1 "fake" because they were just repetitions of the same pitch class "in perpetual motion style."

It interested me that many students did not seem to notice some of the important musical features of the music until we were observing the score a second time. Their initial observations were somewhat shallow, as though they needed time to warm up. It was further enlightening that many of them found this activity to be mentally intense, something they were not accustomed to doing; some even mentioned out loud that "this was a really helpful way of using the brain to think about things more professionally."¹⁶

Even though some of the student comments in this case did not rise to the level of complex professional analysis, the students began to sense the intellectual empowerment that careful observation brings. Once students understand the connection between careful observation and owning a personal sense of academic empowerment, they are likely to continue honing their powers of observation. As these skills increase, instructors can

¹⁶ In a separate class where we were evaluating a song text, I used the thinking routine Ten Times Three. I was amazed by the noticeable shift in thinking that occurred towards the end of the second round and during the third round of observation. Careful observation clearly empowered the students.

build on this foundation and develop lessons that require increasingly sophisticated observation and analysis.

Tips for Transfer

One of the most amazing concepts of educational psychology is the fact that education is supposedly designed to help students succeed in life, but students are famously inept at applying what they learn in school to real life situations. Psychologist Robert Slavin states this eloquently:

The most important thing to know about transfer of learning is that it cannot be assumed. Just because a student has mastered a skill or concept in one setting or circumstance, there is no guarantee whatsoever that the student will be able to apply this skill or concept to a new setting, even if the setting seems (at least to the teacher) to be very similar . . . As an example of this, Lave...describes a man in a weight-loss program who was faced with the problem of measuring out a serving of cottage cheese that was three-quarters of the usual two-thirds cup allowance. The man, who had passed college calculus, measured out two-thirds of a cup of cottage cheese, dumped it out in a circle on a cutting board, marked a cross on it, and scooped away one quadrant. It never occurred to him to multiply $\frac{2}{3} \times \frac{3}{4} = \frac{1}{2}$, an operation that almost any sixth-grader could do on paper (but few could apply in a practical situation).¹⁷

I have actually heard college music graduates tell students, “What you learn in music theory class has nothing to do with your day-to-day life as a musician.” While professors cannot be held responsible for the anti-intellectual dispositions that some of their students may have, it is also true that many students do not have the ability to understand how to apply what they learn unless they are specifically shown how to apply the knowledge they are learning. If students develop the concept that music theory is merely the working of exercises that require them to use an arcane system of figured bass, their education in music theory will be nearly pointless.

¹⁷ Robert E. Slavin, *Educational Psychology*, Sixth Edition (Boston: Allyn and Bacon, 2000), 239.

Unless professors are clear about the kinds of things students should be *doing* with their knowledge of music theory, they will subtly signal the pointlessness of their courses, students catch on to this quickly. They easily develop the idea that many courses are mere academic formalities, that the goal is simply to meet the requirements, get the “professors off their backs,” and then move on with the realities of life, realities that have nothing to do with applying their education to real-life situations. I believe good music theory teaching requires professors to constantly think of ways to communicate the importance and practicality of the subject they teach. In the following section, two ideas are presented that can help students see some practical purposes for music theory.

Composing a Song

In my experience, having a composition project due near the end of first-semester theory is an excellent tool. First, by working on such a project, students begin to see how all the various pieces of the theory curriculum come together. Second, even if the individual components have been taught, one must not assume that students have the ability to assimilate that information in order to achieve a practical goal. Third, by specifying that the students must compose in a certain style, students begin to learn that things may or may not be stylistically appropriate as opposed to the more simplistic notion that certain musical procedures are unequivocally right or wrong.

Because I work in a college where the vast majority of students are training for ministry positions, I assign the first-semester class the task of writing a composition in the style of the 19th-century gospel song. Typically, 19th-century gospel songs are models of simplicity and predictability. The following excerpt gives a stylistic point of reference.

Shall We Gather at the River?

Words and Music by
Robert Lowry (1826-1899)

Shall we gath - er at the riv - er, Where bright an - gel feet have trod; ____

5 With its crys - tal tide for - ev - er Flow-ing by the ____ throne of ____ God.

As we work through this composition unit, I find it necessary to stress the following points:

1. Introduction of poetic meter, explaining that there needs to be a coordination between poetic accents and musical accents; that is, syllables that are unaccented in the poem should not be placed on strong metric accents.¹⁸
2. Chord progressions. For example, while the progression V – IV is frequently encountered in hymns of the late 20th century, it is very rare in the 19th century.
3. Slurs in vocal music of this kind indicate melismas, not phrasing.

¹⁸ In every class, it seems that there is at least one person who struggles to tell the difference between accented syllables and unaccented syllables. When all else fails, I ask the students to lightly place a couple of their fingers on their chin. They then pronounce a word, for example *gather*, and determine on what syllable their chin drops the lowest. This is the accented syllable.

4. In m. 4 of the above example, students need to be reminded of the text-tune relationships that explain why the alto, tenor, and bass should be written as whole notes, while the soprano is written as half notes.
5. The duet texture that is embedded into the four-part writing (such as the soprano and alto part in m. 3).
6. The kinds of rhythms used in such compositions and the kinds of rhythms that are not used.
7. The phrase lengths that are typical of this style.
8. The cadences that are typical of this style.

Most students benefit greatly from writing one or two songs before they submit the final project. In my experience, they greatly profit from feedback, knowing that they will soon be submitting a major project that will have a considerable impact on their final grade.

Perhaps the most important part of the transfer that occurs during this process is when students realize that ideas from music theory (ideas outside themselves) can inform their personal compositions (ideas from inside themselves). As they compose, they have an opportunity to manage their own creativity and how it relates to so many other musical considerations. I have often found it helpful to help students distinguish between being creative and being overwhelmed. When I detect that they are frustrated, I try to dispel their thoughts of discouragement by saying something like, “Oh, no. You should not feel discouraged by this at all. You should enjoy the feeling you get as you engage in a creative process that is so multi-faceted. If music weren’t so complex, you would be

quickly bored. But with everything there is to think about, you will find that music can intrigue you for a lifetime!”

As the students compose in this style, they often struggle to remember all the different items that must be considered, but working on such a project certainly helps them transfer information from the theory lecture to their own compositional technique, and many students experience an “aha” moment. “Oh, that’s why we had to learn that!”¹⁹

Teaching Instrumental Practice

I have found that it is important to explicitly teach piano students that they are supposed to think about chords as they perform music.²⁰ Even students who have strong chord knowledge often think of the three separate items C, E, and G instead of the single unit of the C major triad as they play. In class, I make statements like, “When you are looking at music, you are supposed to make an effort to identify the chords.” Many students admit that this concept is new to them.

In some cases, private instructors require their students to analyze the music before they play it, and this is an excellent idea. However, many students merely write a set of Roman numerals in the score, but they return to note-by-note thinking as soon as they finish the task. Often, it takes great effort and constant reinforcement to teach students the **habit** of reading music in a way that demonstrates musical comprehension, to teach them that they can actually keep the chords in their minds as they play. Further, they need the reassurance of knowing that it is acceptable for them to keep in mind the chords they actually understand, even if they do not understand all the harmonic

¹⁹ Because a one-credit music typesetting is co-requisite to Music Theory 1, our students must typeset their composition, observing all the conventions of a typical hymnal.

²⁰ Obviously, this principle applies when the repertoire is chordally conceived.

vocabulary in a piece. If they believe the only acceptable standard is perfection, they may well give up entirely, not realizing that the vast complexity of music is never perfectly understood by anyone.

Recently, I was talking with one of my private piano students. Just three days before our conversation, she had participated in the small group that used *Ten Times Two* to observe features of Telemann's *Fantasia No. 5 in F major* (described earlier in this paper). I had recently assigned her a piece by Béla Bartók, so I asked, "What did you observe about the piece?"

"Oh, my," she said. "I didn't. I was just playing it. I really need to develop the habit of observing the music I play!" Interestingly, even though she had been taught the value of close observation and had very recently participated in a session designed to strengthen that skill, I still needed to provide explicit guidance for her in order for her to transfer that information from the theory class to her instrumental practice.

When it is possible to do so, I believe it is helpful for private piano students to spend some time improvising from lead sheets. This helps students get accustomed to the idea of thinking in chords. In many cases, students find it easier to comprehend the chordal figuration used by composers when they have made an attempt to create arrangements of their own based on chord symbols. Though it may seem too obvious to state, many students are helped by such statements as, "The composer here is doing something very similar to what you were doing when you were improvising last week."

The nine tools presented in this paper do not present a comprehensive framework for teaching first-year music theory students. Thankfully, there is no one method of teaching that is ideal for every situation, and many of the best teachers use approaches

that differ sharply from those used by other great instructors. As we do our best to provide a quality music theory education for our first-year students, it is my hope that these ideas can encourage teachers of first-year music theory to continue the never-ending experimentation that is the joyful accompaniment to the art of teaching.

Bibliography

Artful Thinking. Materials from the WIDE World online course Making Thinking Visible: Building Understanding through Critical and Creative Thinking (September – December 2013). Wide-scale Interactive Development for Educators (WIDE) is a professional development program based at the Harvard Graduate School of Education.

Bear, Donald, Marcia Invernizzi, Shane Templeton, and Francine Johnston. *Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction*, Fifth Edition. Boston: Pearson, 2012.

Cook, Nicholas. *A Guide to Musical Analysis*. Oxford: Oxford University Press, 1987.

Hoag, Melissa. “Seven Strategies for Enabling Student Success in the First-Year Music Theory Sequence.” *Music Theory Pedagogy Online* 2 (2013). Accessed March 21, 2014, <http://jmtmp.ou.edu/ejournal/seven-strategies-enabling-student-success-first-year-music-theory-sequence>.

Mattheson, Johann. “Johann Mattheson on Affect and Rhetoric in Music (I).” Translated by Hans Lennenberg. *Journal of Music Theory* 2, no. 1 (April 1958): 47-84.

———. “Johann Mattheson on Affect and Rhetoric in Music (II).” Translated by Hans Lennenberg. *Journal of Music Theory* 2, no. 2 (November 1958): 193-236.

McBeth, W. Francis. *Helpful New Ideas for the Understanding of 18th Century Harmony*. San Antonio: Southern Music, 1979.

Reddick, Carissa. “Teaching Analysis of Chromatic Chords Through Chord Qualities.” *Music Theory Pedagogy Online* 2 (2013). Accessed March 21, 2014, <http://jmtmp.ou.edu/ejournal/teaching-analysis-chromatic-chords-through-chord-qualities-0>

Rogers, Michael R. *Teaching Approaches in Music Theory: An Overview of Pedagogical Philosophies*. Carbondale, IL: Southern Illinois University Press, 1984.

Slavin, Robert E. *Educational Psychology*, Sixth Edition. Boston: Allyn and Bacon, 2000.