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Practical and Philosophical Reflections Regarding Aural Skills Assessment

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ASSESSMENT IN AURAL SKILLS COURSES is a tricky intersection of instructors' expectations, students' skills in audiation, students' perceptions and anxieties regarding assessment and performance, and the peculiarities of evaluative instruments. After several years in my teaching position at a large university, I became increasingly dissatisfied with assessment in the second-year aural skills program I coordinate. In short, I was displeased both with the nature of the student activities we evaluated and with the ways in which success on those activities was measured. Students' and instructors' frustrations convinced me of the need to make assessment more obviously relevant, less intimidating to students, and more reflective of students' success in mastering the skills we hope to foster. My hope in sharing the problems I identified, and my responses to them, is to inspire introspection about what our aural skills assessment methods actually measure, the expertise we intend for students to gain from this part of their music studies, and the potentially dangerous distance between these two things.

I must acknowledge in advance that, throughout this article, I presume an orthodox approach to collegiate aural skills instruction. Such an approach provides students with strategies for completing common audiation activities such as melodic and harmonic dictation and sight-singing, alongside in-class practice employing these strategies. Students' mastery of audiation skills is tested periodically with dictation activities (i.e., quizzes and/or exams) and singing activities (i.e., "hearings" or "audits"), student performance on these activities is measured with an assessment tool, and the measurement becomes a basis for students' grades in the class.

It would be disingenuous to imply that this model is the only way in which an aural skills curriculum *could* work, or that it is without its faults.¹ But rather than attacking this broad-stroked outline, which mirrors normative curricular practice at a great many American post-secondary schools that offer music degrees (including my own), in this essay I will consider closely the role and makeup of assessment activities in this model. Doing so can strengthen the student outcomes of such programs—and our measurements of those outcomes—without upsetting the entire curricular apple cart.

PROBLEMS

I identified three overlapping problems in my aural skills program: students nervous about assessment, evaluative tools that didn't consistently reflect student mastery of the elements being tested, and a disconnect between assessment and the larger perspective on audiation and musical listening I wanted students to gain. Each of these problems deserves a full exploration before proposing solutions to address them.

1. Assessment makes students anxious. Michael Rogers's *Teaching Approaches in Music Theory*, a cornerstone of music theory pedagogy, has relatively little to say about assessment and almost nothing about aural skills assessment in particular. But in its list of sixteen "suggestions for constructing a valuable test," there are two suggestions with asides relating to dictation tests:

Lots of shorter tests are best so that no single score is over-weighted.
This is especially true of ear-training exams where the possibility of having an off day is more likely.

¹The Engaging Students Unconference, formerly known as FlipCamp, is an annual event focusing on inverting (or "flipping") the music theory classroom that has nurtured a resurgent interest in pedagogical innovations in our discipline. For a sampling of the ideas fostered by this line of instructional thought, see Philip Duker, Anna Gawboy, Bryn Hughes, and Kris Shaffer, "Hacking the Music Theory Classroom: Standards-Based Grading, Just-in-Time Teaching, and the Inverted Class," *Music Theory Online* 21, no. 1 (2015). The pedagogical concerns and suggestions promulgated in this essay are in many ways sympathetic to those of the FlipCamp "school," though perhaps less revolutionary in scope.

And:

It is wise (*especially with dictation tests*) to begin with a few simple items that nearly everyone can be successful with to build confidence and to help stabilize shaky nerves (emphases added).²

My experience echoes Rogers's observations. Being assessed in any post-secondary course has potential to create anxiety, and aural skills seems to be acutely susceptible to this tendency, for a number of reasons. This kind of testing is temporal: it demands response to stimuli in a limited time with limited exposure. Students who excel academically and musically may nonetheless find themselves weak in aural skills, adding to the self-imposed pressure to do as well in this course as they're accustomed in other music-academic contexts. Success in aural skills requires creative and abstract application of theoretical principles—application that can be difficult under the stress of a timed exam, a limited number of hearings, or a tenuous grasp of those theoretical principles in the first place. Singing for assessment, whether at sight or from a prepared melody, has a special set of fear-inducing circumstances that begins with its requirement of a particularly personal response from the student: the sound of his/her own voice. W. Stephen Smith notes that the voice "is subject to human nature, and human nature is a complex mix of intellectual, spiritual, emotional, physical, and psychological aspects. All of these things are unobservable and nonmechanical, yet they have a direct impact on our ability to sing with efficiency and freedom. Therein lies the singer's dilemma."³ The entanglements of these concerns with singing-based assessment are obvious. In addition to the psychological baggage that attends a "normal" musical performance, the knowledge that a portion of the course grade depends on the performance and, for many non-vocalists, the relative lack of experience performing with one's voice, all amplify the potential angst of this experience.

There are two negative consequences of student anxiety about aural skills assessment: such anxiety becomes a barrier to students' demonstration in that assessment exercise of their levels of mastery, and dread of the assessment experience can catalyze a downward spiral of waning enthusiasm for the subject, pessimism about one's own potential for

²Michael Rogers, *Teaching Approaches in Music Theory*, 2nd ed. (Carbondale, IL: Southern Illinois University Press, 2004), 166–67.

³W. Stephen Smith with Michael Chipman, *The Naked Voice: A Wholistic Approach to Singing* (New York: Oxford University Press, 2007), 18.

success in the class (and even in one's own musicianship), and a sense of futility about practice activities related to aural skills.

I often find myself working with a struggling student who, outside of the assessment experience, can actually demonstrate a reasonable level of facility in aural skills (or in a particular sub-topic under inspection). The very identification of the quiz, exam, or hearing *as* an assessment is the factor that impairs such students' potential for success. It may be impossible to remove all the dynamics that contribute to assessment anxiety in aural skills courses, but certainly it is worthwhile to find ways to mitigate them.

2. Assessment tools don't consistently focus on the specific skill needing to be assessed. Assessment tools should be valid; that is, the results of applying the assessment tool should measure accurately the aural skills that the instructor is actually trying to assess. Example 1, a potential harmonic dictation exercise, provides a straightforward instance of how a grading rubric can be ineffective in quantifying student mastery of a particular skill. Imagine that this exercise is used as part of an assessment at the end of a unit focused upon distinguishing among common diatonic predominant chords (i.e., ii, ii⁶, ii⁶, IV, and IV⁶ in the major mode). Students are instructed to notate bass and soprano and provide harmonic analysis in a given number of hearings.⁴

This phrase includes one of the predominant chords that, at the end of this unit, we'd like students to recognize and distinguish from other dominants. But it's not immediately obvious how to build a grading scheme for this exercise that discriminates between students who have demonstrated mastery of this skill and those who have not. One rudimentary (and, in my experience, common) way to assess student work might be to award a point for each correct bass note, soprano note, and roman numeral. (Let us assume, for the sake of discussion, that all these elements for the first chord are given, as is the designation of the progression's key.) The exercise is thus worth fifteen points, three of which have to do with the ii⁶. Under this grading system, students

⁴Here and elsewhere, I intentionally avoid discussing aspects of dictation activities that do not contribute directly to the particular aspects of assessment at hand. Certainly it *does* matter how many times a particular dictation element is repeated, or whether a pulse is counted off or a key established in advance of a hearing, or how much information is provided in advance (the key? the key signature? the starting note(s)? the time signature?). Different instructional philosophies lead to contrasting conclusions about these matters, and they are taken up in detail by Gary Karpinski in *Aural Skills Acquisition* (New York: Oxford University Press, 2000).

EXAMPLE 1. A harmonic dictation exercise

A^b: I I⁶ ii⁶₅ I⁴ V⁷ I

can thus earn a score of 80% without demonstrating achievement (or even awareness) of the new skill this exercise purports to quantify. It is easy to imagine students “skating by” large portions of an aural skills curriculum under similar grading schemes, earning passing scores by identifying little more than tonic and dominant chords in harmonic-dictation assessments modeled after typical tonal phrases.⁵

A similar issue plagues singing assessment methods that assign equal weight to correct performances of equal-sized units of a given melody (“two points per bar,” “one point per half-measure,” etc.). Tonal sight-singing melodies, even those specifically designed to represent the musical elements most recently introduced to students (and thus the intended targets for assessment), must still in some places make use of the most simple tonal materials so as to reflect common-practice syntax. A melody designed to test students’ ability to audiate a secondary chord, for instance, will necessarily include passages that clearly (i.e., simply) establish its main key. A grading system that grants these diatonic passages the same weight as the implied secondary chord will not indicate students’ success or failure in meeting the curricular objective this assessment tool is meant to measure.

3. The life-long listening and audiation habits we hope for our students to develop aren’t emphasized in the choices we make for assessment tools and rubrics. At first blush, this problem might appear to be a restatement of the last (“assessment tools don’t consistently focus on the specific skill needing to be assessed”). I mean here to bring attention to a broader philosophical issue—rather than asking us whether we’re giving enough points to the testing element we’re trying to extract from a dictation, this problem leads us to ask whether the kinds and designs of assessment tools for which we expect students to prepare

⁵Though beyond the scope of this paper, this is a problem that, for similar reasons, dogs assessment of traditional harmonic analysis as well.

fosters the sort of relationship we want students to have with music, whether in notation or in an aural signal, throughout their professional lives.

Aural skills instructors must constantly reckon with a pair of learning limits: curricular time and students' long-term memory. The amount of exposure we can demand of our students to aural skills activities, whether measured in credit hours, contact time, or directed practice outside the classroom, has a ceiling. That ceiling is often low: at my institution, courses explicitly focused on aural skills account for four of 120 credit hours in a bachelor's degree, or 3.33% of the entire program; I suspect many other B.M. curricula in the U.S. are similar. And the longevity of theoretical, analytical, and aural proficiencies developed by students in this coursework depends on exercising them beyond the horizon of that curriculum—when former students have neither professional reason nor pressure from impending assessments to provide incentive to use these skills, they simply do not retain them.

Given these limits, it is essential that we consider carefully what we ask students to do in assessment settings. If, for instance, our assessments prioritize the distinguishing of the three varieties of augmented sixth chords, then we are (appropriately) likely to spend some of our limited class time offering strategies and drills to help students hear the differences between them, and students are similarly likely to spend some of their limited practice time focused on the same issue. It may well be, thanks to an instructor's pedagogical prowess and their own diligence, that a group of students does become proficient at distinguishing augmented sixth chords' nationalities, and they thus perform well on the culminating assessment activity. The issue I am raising has to do with the level of significance of this (or any) particular listening feat in students' larger musical lives. Is hearing the difference between French and German augmented sixths a lifelong listening habit that we want to spotlight? Does its priority represent the amount of time and reinforcement required to become proficient at mastering and later recalling this skill? I mean not to suppose a particular answer to these questions for every teacher, but to insist that we ask ourselves these questions in the first place.

Marshall Gregory's philosophy of post-secondary education is relevant to this discussion. He argues eloquently that teachers' perspectives improve upon realizing that,

...while most of the content they teach will be forgotten (just as most of the content that everyone learns is forgotten), the effects

of learning do not merely evaporate. An old but true adage about education says that education is what remains when everything you learned has been forgotten. The truth of this adage helps us focus on the reality that I now want to probe more deeply: the reality that when content is really learned, it gets absorbed, not stored. We only remember stored information when we continue to use it and thus reinforce it. We remember absorbed information all our lives because what gets absorbed does not have to be recalled. Instead, it changes the interior architecture of thinking itself, which means that it becomes part of the mind’s structure, not carried about as part of the mind’s burden.

...Later in students’ lives (like next semester), after they have taken our classes, the course content they studied with us may no longer be recallable as information. But if the class provided a real learning experience, the students’ struggle with our assigned content will have turned into something deeper than information. It will have turned into new habits of reasoning, speaking, writing, and imagining.⁶

This long-range outlook on our students’ musical lives after aural skills classes is essential to the judgements we make about what we test in those classes. Let us presume, for the sake of argument, that our students—even our most engaged, talented, and eager students—will not long remember the differences among different augmented sixth chords upon exiting our classes (in my own experience, I never have to look far for anecdotal evidence to suggest this is true). Acknowledging this fact certainly has consequences for the amount of time and emphasis we place on teasing them apart aurally in our aural skills curriculum, and, by extension, in our assessment activities. By focusing a quantity of limited time and attention on a particular topic (like distinguishing among augmented sixths), we are not only privileging that topic over others that might take its place in our curricula; we are also—given those twin limits of time and memory described above—tacitly communicating to students that devoting time and attention to this skill now is something we expect to be beneficial to them for the rest of their professional lives, over and above other skills that might have taken its place in our curricula.

I want to be careful in articulating this global concern. I do not mean at all to suggest that we should jettison all instruction about

⁶Marshall Gregory, “Do We Teach Disciplines or Do We Teach Students?—What Difference Does It Make?” *ADE Bulletin* 141–42 (2007): 36–37.

augmented sixths (or any other critical nugget of tonal theory) on the expectation that students will forget it anyway. Instead, I am arguing for us to appreciate that we are not merely teaching “to” the next dictation exam or hearing, but contributing to the mapping of students’ minds so that they’ll habitually engage with music in specific, productive ways. Failing to recognize this fact can mislead us into building assessment tools that cause our students to come away from aural skills classes thinking that “listening to and audiating music” is something quite different from what we *want* them to think “listening to and audiating music” is.

SOLUTIONS

My ideas regarding aural skills assessment, while couched in my experiences designing and delivering aural skills instruction at three universities in two states over the last seventeen years, are necessarily grounded in anecdotal experience. Some of the ideas I describe below make innovative use of technology; others are not so groundbreaking. Certainly, none is a panacea that can be responsibly prescribed for use in another curriculum without regard to its particulars: its students’ backgrounds and professional aspirations, its instructors’ pedagogical values, and even the cultural attitude of the music department or school regarding aural skills.

Prior to overhauling my current aural skills curriculum, each semester-long course included four dictation quizzes, each of which was the culmination of a “unit” in the class, as well as two exams (a mid-term and a final). After reflection upon the problems described above, I replaced that model with a slate of twelve to fourteen dictation quizzes each semester (in addition to the two exams, as discussed below). Our courses meet twice a week, meaning that, on average, students submit to a dictation quiz or exam a little more than once per week. Thinking of the course in this way demands that one plan the dictation assessment activities first, then design class activities and provide additional practice opportunities that help students hone the specific skills and patterns of thought that lead to success on those activities. Practically speaking, packing a one-semester, twice-weekly course with up to fourteen dictation quizzes and two exams means that, in a sense, one is always “teaching to the test.” But it seems to me that assessment should reflect, as directly as possible, the specific skills we’re equipping our students to master. From that perspective, I find that the consistent presence of another dictation quiz or exam on the horizon keeps students

and instructors sharply focused on the next objective. If the assessment requires students to model the very skill we hope for them to master, then I see no fault in teaching “to” it.

I have found that this curricular model has several advantages. The high frequency of assessment means that no one quiz can make or break a student’s course average. (I also drop the lowest dictation quiz score from the student’s course average.) Students’ knowledge that each individual quiz carries so little weight mitigates the barriers of stress and performance pressure that typify aural skills assessment. Making dictation testing more common allows for its setting to be more familiar and comfortable—the act of completing a dictation quiz becomes a routine part of class rather than a mountaintop (or valley-of-the-shadow-of-death) experience. The delivery of so many dictation quizzes and exams also improves students’ attendance and timeliness for class, and encourages them to develop routines of regular individual practice in contrast to trying to “cram” just before a small number of high-stakes assessments.

In this approach, dictation quizzes are designed—especially early in the term—to address small, tightly-defined sets of skills and concepts that are introduced and explored in the class meetings just before each quiz. For instance, one dictation quiz asks students to notate soprano and bass, and provide roman numerals, for three-chord progressions that expand tonic harmony through passing bass motion. Sample progressions representing what might be heard on the quiz are provided in Example 2.

It’s essential to note that students are well aware of the precise format of this quiz several days in advance: they know it’ll contain three-chord progressions, anchored by I or I⁶ at each end, with a passing chord between. The format is rehearsed in class; students receive copies of typical progressions in four voices to practice (by playing at the piano, singing along alternately with the melody and the bass); and they receive online dictation practice in the same format as the quiz, via our course management system, alongside answer keys.

This quiz is paradigmatic of the curricular planning for which I’m advocating. The expectations of students for this assessment are finite, specific, and for most achievable with a few days of quality practice. It is easy to design a grading rubric that focuses on the “money” chord (the inverted dominant-function chord) over the other necessary elements of the progression (I will describe such a rubric below). The quiz crystallizes a critical particle of tonality: how to harmonize a passing $\hat{2}$ that is surrounded by tonic harmony. Finally, and perhaps as a result of

EXAMPLE 2. Three-chord progressions prolonging tonic through passing $\hat{2}$ in the bass

1. 2.

A: I V₄⁶ I⁶ f: i⁶ vii⁶ i

3. 4.



c: i vii^o₅ i⁶ Bb: I⁶ V₃⁴ I

the other factors just described, students tend to do well on this quiz. Success with these little three-chord progressions, which often serve to open a longer phrase, breeds confidence as the curriculum turns to the harmonic events that typify the rest of such a phrase.



Example 3 is a summary of all assessment activities in this course that deal with harmonic dictation. As with the quiz described above, subsequent quizzes tend to point sharply to a single harmonic “issue,” leading students (and the instructor) to focus their preparation on “solving” it and allowing the assessment itself to represent clearly students’ mastery of that issue. The two exams in the course then assemble these issues in a cumulative way. Exam 1 (at midterm) includes a harmonic dictation of eight to ten chords that synthesize functional harmonic progression in a diatonic phrase. Exam 2 (at the end of the semester) features two more harmonic dictation exercises of similar length: one that modulates (in the manner of Quiz 11, which serves as a “dry run” for this part of the exam), and one that makes use of characteristic chromaticism (applied chords, mixture, Neapolitan and augmented sixths).

In addition to dropping each student’s lowest dictation quiz score when figuring course averages, the two exams referenced in Example 3 are proctored in two “runs.” That is, each student has the opportunity to take each exam twice at consecutive class meeting times (with different dictation material in each attempt, of course), and only the higher of the student’s scores on the exam is retained. Students are notified

EXAMPLE 3. Summary of quizzes and exams devoted to harmonic dictation in one course

<p>Quiz 3: X-chord drills: I – X – I⁶ (and I⁶ – X – I)</p>	 <p>A: I V₄⁶ I⁶ f: i⁶ vii⁶₅ i⁶ (V₃, vii⁶₅, vii⁶) (V₄, vii⁶₅, vii⁶)</p>
<p>Quiz 4: X-chord drills: neighbor chords (V⁶, V⁶₅, V⁴, etc.)</p>	 <p>f: i V₅⁶ i Ab: I V₄⁶ I⁶ (V⁶, vii⁶) (IV)</p>
<p>Quiz 5: phrase-length harmonic dictations using T–P–D–T cycle</p>	 <p>b: i iv⁶ ii⁶ i₄⁶ V⁷ i T P D T</p>
<p>Exam 1: eight to ten chords, single phrase, diatonic materials</p>	
<p>Quiz 8: three-chord drills with tonicization, e.g., I – V⁶₃/ii – ii</p>	 <p>G: I V₃⁴/ii ii Eb: I vii₃⁴/V V⁶ (vii⁶₂/ii) (V₂⁴/V, vii⁴₃/V)</p>
<p>Quiz 11: modulating harmonic dictation</p>	 <p>A: I V₂⁴ I⁶ ii b: i vii⁷ i ii⁶₅ i₄⁶ V i</p>
<p>Quiz 12: X-chord drills featuring chromatic predominants: I (or i) – X – V, where X is a chromatic predominant (+6; N⁶; iv⁶₅/ii⁶/ii⁶₅ in major)</p>	 <p>f: i N⁶ V A: I ii⁶₅ V Eb: I It.+6 V</p>
<p>Exam 2: Modulating phrase (a la Quiz 11); phrase with "characteristic chromaticism" (applied chords, mixture, Neapolitan and augmented sixths)</p>	

EXAMPLE 4. Modulating Melodies

<p>Simple, preliminary melodies demonstrating modulation to each closely-related key (for in-class practice or early dictation quiz)</p> 	<p>Modulating melody for dictation exam</p> 
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of their scores on the first attempt the day before the second, equipping them to make informed decisions about whether to try the exam again. (This practice also all but removes the need for make-up exams: students who miss one “run” for any reason simply retain their scores on the other attempt.) The grace offered in this system allows for students who might be having “an off day,” as Rogers puts it, while balancing the need for this part of the curriculum to sweep, gradually and gently, from shorter harmonic crumbs to entire phrases that mirror what we might expect in real tonal music.

A similar progressive approach to melodic dictation is possible. Example 4 juxtaposes an artificially simple set of modulating melodies, which might represent early practice material for students or a first assessment of taking down a modulating melody. Each melody begins in the same way, is the same length, uses quarter notes exclusively until the end, and straightforwardly introduces the crucial chromaticism that points the way to the new key. All other potential complexities of melodic dictation are suspended, allowing the student to focus on the main issue at hand: the modulation. The other side of Example 4 shows a modulating melody that might appear on a later dictation quiz or exam, incorporating more of the typical complexities of a real modulating passage.

In the same way that I crisply focus dictation exercises upon whatever new element of tonal vocabulary is at hand in the curriculum, I shape the grading rubrics for these exercises so as to emphasize those new elements in the scores students earn. To demonstrate, let’s return to the dictation quiz first illustrated in Example 2 (three-chord progressions

EXAMPLE 5. A dictation quiz (passing $\hat{2}$ in the bass) with grading rubric

1. 2.

A: I V⁶ I⁶ f: i⁶ vii⁶ i

3. 4.

e: i vii⁶₅ i⁶ B \flat : I⁶ V⁴₃ I

Award one point each for:

- soprano and bass notes (accept these in any octave; accidentals are essential!),
- key indications,
- roman numerals *for the tonic chords*. No credit for wrong inversions or qualities.

Then, award *six points* for each correct “middle” roman numeral.

- If the middle roman numeral is correct *except* that a needed diminished circle is missing, award five points.
- If the middle roman numeral is incorrect *but is one of the plausible chords in this type of prolongation*, award three points. (Don’t award any credit if the student selected a plausible chord but then made a mistake about its quality.)

“Plausible” middle chords in *major*: V⁶₄, V⁴₃, vii⁶₅, vii⁶₅

“Plausible” middle chords in *minor*: V⁶₄, V⁴₃, vii⁶₅, vii⁶₅

- No credit for *anything else* written for the middle roman numeral.

Fifteen points total per exercise, 60 points total.

prolonging tonic via a passing $\hat{2}$ in the bass). Example 5 reproduces the sample from Example 2 with detailed grading instructions.

A rationale for each part of the rubric appears below:

“Award one point each for soprano and bass notes (accept these in any octave; accidentals are essential!)”: Students are not told the key in advance, nor do they hear a key-defining progression, the opening chord, or its outer voices (following some of the suggestions of Karpinski⁷). Neither are they given the opening notes on the page, meaning that it’s possible for them to tonally induce the entire progression correctly

⁷Karpinski, *Aural Skills Acquisition*, 92–98.

but notate one or both voices in the wrong octave. I choose to award credit despite this kind of error, partly because we don't provide students any strategies for octave discrimination (but I could certainly respect an opposing perspective that suggests students should be able to tell $C\sharp_4$ from $C\sharp_5$, for instance).

“One point for key indications”: I expect students to distinguish between major and minor keys; given a key signature, they should then be able to identify that key. Students who fail at this task will also likely lose credit for their notation of the six outer-voice notes, resulting in a seven-point deduction (out of 15 possible for the exercise). While severe, I believe this to be an appropriate penalty at this point in the curriculum for such a fundamental misunderstanding of the progression's tonal orientation.

“One point each for roman numerals *for the tonic chords*. No credit for wrong inversions or qualities”: Two points out of 15 seems like a reasonable weighting for identifying the inversions and qualities of the bookending tonic chords—especially when students knew in advance that they'd *be* tonic chords.

“Then, award *six points* for each correct ‘middle’ roman numeral”: Because the identification of this chord is the heart of this assessment, it's essential to me that a student who has no idea what to do with this harmony not earn a passing grade. Answering every other prompt on the exercise correctly while leaving this one blank (or providing a completely improbable response) earns a score of 60%. Such a response is better than one that is confused about the exercise's tonality (or that of a student who doesn't take the quiz!), but not strong enough to suggest any proficiency with this subject. The heavy weighting of this one element enforces that hierarchy in the assessment.

“If the middle roman numeral is correct *except* that a needed diminished circle is missing, award five points”: This is a small but significant penalty for a response that otherwise is perfect.

“If the middle roman numeral is incorrect *but is one of the plausible chords in this type of prolongation*, award three points. (Don't award any credit if the student selected a plausible chord but then made a mistake about its quality)”: The list of “plausible chords” provided as part of the rubric consists of all diatonic, dominant-function chords that use $\hat{2}$ in the bass. The rationale for offering half credit (three of six points) for writing, say, V_4^6 instead of V_3^4 , is to recognize that this response has merit: it is harmonically appropriate, and it accounts for the actual bass note. If the student's work on the entire quiz came down to identifying one of these “middle chords,” three out of six points wouldn't be

a passing grade. But confusing V_4^6 with V_3^4 is a significantly smaller error than, say, identifying the middle chord as ii (implying a harmonic retrogression) or as IV (which matches neither the played bass note nor the harmonic progression). Mistaking V_3^4 for V_4^6 is, in my view, a "good mistake" that deserves recognition with partial credit. The truth is that these two chords *are* tough to tell apart (as are V_3^4 and vii^{o6}), and it makes sense for this part of the rubric to distinguish among students who do so successfully, those who don't but are thinking correctly about the surrounding tonal context, and those who are simply grasping at straws.

Students preparing for this quiz quickly realize that they can benefit from simply memorizing the handful of common chords over $\hat{2}$ in this context. Rather than viewing this development as a disadvantage, I am delighted by it. Their work in bass harmonization improves because of this preparation—the baneful "progression" I–ii–I⁶, for example, is generally wiped from my students' vocabulary by this quiz. If, in learning how to "game" this quiz, students accidentally learn all the common ways to harmonize a $\hat{1}-\hat{2}-\hat{3}$ bass line, I'm glad for it. Meanwhile, I consider this approach to be an application of one of the larger principles articulated earlier in this essay: even my best students are unlikely to retain the nuances between these various harmonic clichés, but by forcing them to attend to these clichés by memorizing them, comparing them in aural and written settings, and (later in the semester) recognizing them in larger tonal contexts, I am entraining deeper habits of thinking about and listening to tonal harmony and counterpoint that have value and endurance beyond the aural skills classroom.

A later quiz in the same course uses a parallel design and rubric to test students' familiarity with a family of chromatic predominant chords. Each exercise on the quiz similarly consists of three chords, I(i)–X–V, where X is an augmented sixth chord, N⁶, or some inversion of a mixture-based iv or ii^{o(67)} in a major key. Example 6 shows some sample exercises and the grading rubric for this quiz, which reflects values similar to those in the previous quiz. Again, those values might differ from instructor to instructor—perhaps others would wish to assign more significance to identifying the "nationality" of augmented sixths than I do—but the rubric illustrates how such values can be injected into the assessment.

This philosophy for designing grading rubrics is thus supremely malleable to the teacher's priorities. These rubrics are objective and easy to implement; both these features are essential in large classes or across

EXAMPLE 6. A dictation quiz (chromatic predominants) with grading rubric

f: i N⁶ V A: I ii^{o6} V E^b: I It.+6 V
 (Key signatures and initial soprano and bass notes are given; students are instructed to name the key and provide remaining outer voice pitches and harmonic analysis.)

One point for each soprano and bass note (4 total per exercise). Enharmonic equivalents do *not* receive credit.

One point for correctly identifying the key (1 per exercise).

Five points for correctly identifying the second (predominant) chord. Partial credit as follows:

- For any +6 chord labeled *as* +6 but from the wrong country, award 4 points.
- For any other plausible predominant chord that uses the played bass note, award 3 points:

Plausible predominant chords with $\hat{4}$ in the bass: ii^{o6}, ii^{o5}, iv, N⁶. In major keys, ii⁶, ii⁵, and IV are also plausible.

Plausible predominant chords with $(b)\hat{6}$ in the bass: ii^{o3}, iv⁶, +6 (but see above), and $(b)VI$. In major keys, ii³ and IV⁶ are also plausible.

• For any chord that is identified perfectly *except* that a wrong inversion is indicated, award 3 points. (Examples: confusing iv with iv⁶, ii^{o6} and ii^{o3}. Note that if there's any *other* error in the chord identification, [like confusing ii^{o3} and ii^{o6}], no partial credit is possible.)

(Ignore all analysis of the tonic and dominant chords.)

Ten points total per exercise.

multiple sections. Whether the reader agrees with the relative weighting of the elements of this rubric, or with the format of the quizzes themselves, is not essential (and in fact both have evolved since I first designed them). My intent is only to demonstrate the kind of care that should be taken to structure quizzes and rubrics so as to reflect curricular goals and instructors' priorities while providing low-stakes assessment settings.

A similar concern for providing low-stakes assessment influenced my rethinking of assessing students' singing of given melodies. I concur with Rogers's philosophy about the relationship between audition and singing. On the one hand, a certain facility with one's own voice is essential for any musician—"for quick demonstrations of style and interpretation, or of pitch and rhythm.... it is often handy or even necessary to illustrate a point musically through vocal means." But in

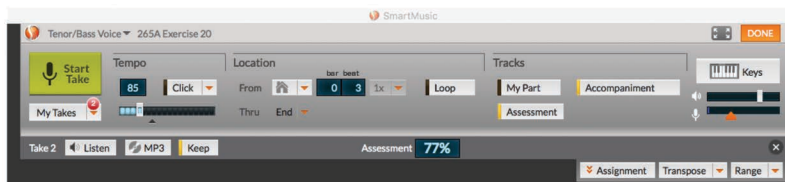
the context of an aural skills classroom, where an overarching goal is the *mental* translation of printed notation into *imagined* sound, singing “remains secondary to internal hearing.” That is, “if we had some way of crawling into a student’s brain to observe, like a mouse in the corner, what mental processes were going on, then singing would not be necessary.”⁸ When I ask students to sing for a grade, I am not assessing their singing. I am trying to get at the mental representation of a given melody that they have formed in their minds—their vocal cords are the imperfect medium by which I access that representation. Ives’s famous complaint is relevant here: “My God! What has sound got to do with music?... Why can’t music go out in the same way it comes in to a man, without having to crawl over a fence of sounds, thoraxes, catguts, wire, wood, and brass?”⁹ Prior to the changes I describe below, the height of this fence seemed formidable to many of my students—to the point that it hindered their willingness even to practice the audiation and singing skills necessary for success on a given upcoming hearing. Certainly I empathize with their lack of enthusiasm. It is difficult to look forward to a hearing that involves crowding into a practice room during a ten-minute window with an instructor or (even worse) an unfamiliar teaching assistant, who stands inches away, holding a pen that records one’s every error in attempting to sing a melody in a single try. The pressure of such a scenario, potentially increased if it only occurs a few times per semester, can make any preparations seem futile to some students.

In an effort to lower Ives’s metaphorical fence, I have replaced most of the singing hearings in my aural skills classes with exercises in SmartMusic. SmartMusic is a computer application developed by MakeMusic, Inc. (the creators of Finale notation software, among other products) to provide an assessment environment for—originally—pre-college music educators and their students. Students read notation provided onscreen (on a computer or iPad) to play or sing a melody selected in advance by the instructor, whether a scale, an etude, or the tenor saxophone part for a high-school concert band work. SmartMusic captures the audio from the student’s performance and instantly displays feedback to the student, comparing what it expected to hear with what the student actually performed.

⁸Rogers, *Teaching Approaches in Music Theory*, 127–28.

⁹Charles Ives, “Essays before a Sonata,” in *Essays before a Sonata, The Majority, and other Writings*, ed. Howard Boatwright (New York: W.W. Norton, 1961, reissued 1999), 84.

EXAMPLE 7. An assessed melody in SmartMusic



Example 7 provides a screenshot from SmartMusic, showing how the software assesses a performance just sung into the computer's microphone.

Green noteheads show correctly performed notes; red noteheads represent the performance's deviations from the given melody.¹⁰ The screenshot shows SmartMusic's own overall score for the performance, computed simply by dividing the number of correctly performed notes (in this case, 23) by the total number of notes (30).

Students enrolled in our aural skills classes are required to purchase a subscription to SmartMusic (thus establishing an annually renewable account). They install the software onto their own computers or iPads.¹¹ Over the length of each class, they are assigned 45 exercises in SmartMusic, usually in batches of four or five due weekly (excepting the first few weeks of the semester, exam weeks, and holidays). Nearly all of the melodies in these exercises come from the sight-singing text for the curriculum, and I also provide written strategies for each melody to help students learn them before trying to perform them into a computer or iPad.

Unlike the tense setting offered by live hearings, students using SmartMusic are able to attempt each exercise as many times as they like,

¹⁰This melody appears in Thomas Benjamin, Michael Horvit, and Robert Nelson, *Music for Sight Singing*, 6th ed. (Boston: Schirmer, 2013), 171. Exercise #1 is shown.

¹¹Undergraduate students majoring in music at the University of Nebraska–Lincoln are required to purchase a iPad upon enrolling. The electronic textbooks for our undergraduate sequence in (written) music theory and another required first-year course (“Music as Art, Discipline, and Profession”), written and developed by UNL faculty, are provided to students free of charge to be read on these devices—and, of course, every student thus has the hardware needed to make use of SmartMusic.

at their leisure, in an environment of their choice, with an instant summary of their errors and overall score. SmartMusic allows students to retain several attempts at once, so they may hold onto a given score while trying for a better performance. When they are satisfied with their work, they submit electronically their best attempts to their instructors, who then have access to recordings of those attempts and to SmartMusic’s assessment of them. At the end of the term, students’ course averages in singing prepared melodies is thus based on 45 such exercises, each of which is potentially the product of multiple attempts at demonstrating an accurate audiation. This contrasts starkly with our previous model, which involved one or two melodic *performances* per hearing (perhaps fifteen in total), each of which was provided under the stress of live reproduction of the mental image of the melody in a single attempt. Replacing live performance of prepared melodies with SmartMusic exercises thus lowers the stakes for each melody, elevates students’ opportunities to practice productively, and minimizes the impediment toward mastery of audiation skills created by the notion of “singing for a grade.”

Adopting SmartMusic into our curriculum did create a new set of challenges. Its tolerance for small fluctuations in tempo and pitch when assessing sung melodies is significantly stricter than that we would use in evaluating a live performance. Additionally, the software does not listen to the vocal phonemes being sung, meaning that it cannot account for the use of solmization systems. It similarly doesn’t track the timbre of the performed melody. It’s thus theoretically possible for a student to play a melody on the piano or a trombone, for instance, rather than singing it, and the software won’t know the difference. To deal with these issues, the syllabi for my aural skills classes explain that ten of the 45 exercises throughout the semester will be manually assessed by the instructor (or a teaching assistant) after they are submitted—but students are not told in advance which exercises these are. These manually assessed melodies are evaluated for the correct use of solfège and re-scored to account for instances when the software’s error-detection algorithms are fussier than they need to be. Scores for manually assessed exercises therefore tend to be higher than the others (assuming the use of solfège as expected; otherwise, penalties are imposed). This manual assessment is also a chance to bring any illicit work to light, such as exercises performed on an instrument or by a friend.

In our course averages, manually assessed exercises carry five times the weight of other SmartMusic exercises.¹² Because students are not

¹²My thanks go to Matthew Shaftel for sharing with me the details of implementation of SmartMusic into his aural skills classes at Florida State

told in advance which exercises will receive this treatment, they have incentive to treat every one equally. When SmartMusic's automatic assessment occasionally fails to award credit because of a mild fluctuation of pitch or tempo, the value of such a discrepancy in the student's overall course average is made infinitesimal by this grading scheme: if the exercise is manually assessed, the discrepancy is noted and corrected; if it is not, the exercise itself is worth so little relative to all the others (and especially the quintuply weighted manually assessed exercises) that the automatic assessment's rigidity has virtually no negative impact on students' overall scores. Of course, there are other ways to account for the inevitable differences between the software's automatically generated scores and the scores an instructor might choose to award personally. In a different curriculum, the decision might be made to bypass the automatic assessment features of SmartMusic and instead manually score to *every* submitted exercise. Or, a teacher could choose simply to exclude automatically generated assessment from the course average by retaining only scores from manually evaluated exercises without announcing in advance which exercises will receive this treatment.

The integration of SmartMusic into our aural skills sequence has not completely eliminated the need for in-person hearings. Even though this software has the capability to assess *sight*-singing, I have chosen not to make use of it—the opportunity for students to photograph, preserve, and share melodies from the screen meant to be assimilated at sight is just too great. (And the act of sight-singing carries an innate component of performance stress, so removing the performance setting of a live hearing really wouldn't lower blood-pressure levels in this context anyway.) Despite its shortcomings (and the inevitable grumblings of a fraction of students when forced to work toward mastery of difficult elements of musicianship, no matter the medium), I believe SmartMusic has both elevated students' achievement in audiation and removed a large quantity of anxiety regarding assessment of their singing. Those two outcomes are doubtlessly linked.

The last “solution” that I offer in this essay targets the third problem discussed earlier: “The life-long listening and audiation habits we hope for our students to develop aren't emphasized in the choices we

University, which served as the inspiration for the model presented here. He is the co-author, with Evan Jones and Juan Chattah, of *Aural Skills in Context: A Comprehensive Approach to Sight Singing, Ear Training, Harmony, and Improvisation* (New York: Oxford University Press, 2014), which also integrates SmartMusic into the undergraduate curriculum.

make for assessment tools and rubrics." Naturally, different pedagogues of music theory and aural skills hold divergent opinions about what those "life-long listening and audiation habits" might be, and I have tried to honor such differences in my articulation of this problem above. Here, however, I will lay my own cards on the table. When I imagine my former students absorbing heard music and audiating notated music as professionals and consumers, and then I compare that mental image with the typical dictation and audiation (singing) exercises that form the backbone of aural skills assessment in my program, the estrangement between the two is significant.

I want for my students to become what I call "virtuosic listeners." I mean not that I hope for them to become world champions of transcription, memorizing and taking down entire symphonic movements on a single hearing, but that they would be able to hear the most significant tonal elements and connections among them as they sit in darkened concert halls or read through ensemble pieces with colleagues. The issue is partly one of forests and trees: while I help students to agonize over individual notes and chords of a melodic or harmonic dictation, the skills required to find one's way across larger, authentic musical landscapes go unaddressed by our efforts. This disconnect with real-world musical experiences is magnified by the temporality of music. In the context of an entire musical work that goes on for more than the one or two phrases that are typical of classroom melodic and harmonic dictation, the act of telling the difference between, say, unanticipated iv^6 and $ii^{o4} \bar{3}$ harmonies as a particular cadence approaches is likely to be both futile and unessential to the overall aesthetic experience.

With these concerns in mind, Examples 8 and 9 demonstrate the kinds of activities I have begun to integrate into my second-year aural skills program. They illustrate some of the sorts of listening attitudes I desire for my students to take into their careers.

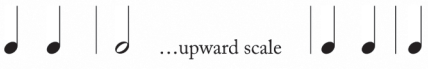
Individual harmonies and melodic tones do matter in this perspective, inasmuch as they are saliently emphasized at formal junctures. Knowing precisely how the opening exclamation marks of the Hummel sonata establish its tonality is important, as is tracking the broad harmonic progress of the music, whether in the paired opening phrases of the Hummel or in the tonicization of the relative major and the deceptive cadence in the show tune. But the application of aural skills in these contextual listening exercises is rich and obviously relevant to my goals for "virtuosic listeners" in ways that traditional harmonic and melodic dictation are not. These activities show explicitly to students that the proficiencies of aural skills can add new dynamics to their experience of

EXAMPLE 8a. Contextual listening worksheet on Hummel’s Sonata for Flute and Piano, Op. 60, mm. 1–19 (underlined content represents material that is to be supplied by students completing the exercise)

Hummel, Sonata for Flute and Piano, Op. 50, I, opening

This excerpt consists of an introduction followed by three phrases.

1. Complete the following summary of the introductory melody and supporting harmonies.

C


solfège: mi la sol sol ti do

chords: I IV I₄ V V I

2. What are the first and last harmonies of the first and second phrases (after the introduction)?

	First chord	Last chord
Phrase 1	I	V
Phrase 2	V	I

3. The third and final phrase is the longest. What part of this phrase is repeated to *make* it so long? Describe the motive used in this part of the phrase using solfège.

The phrase begins with la–ti–do–mi in a high register, followed by an double-neighbor decoration of do. This entire melodic fragment is immediately repeated before the phrase approaches the cadence.

performed music, and, by prioritizing particular musical elements and events with the kinds of questions they ask, they also demonstrate how one might go about applying those proficiencies.¹³

In practice, completing exercises like these takes more than the single hearing that listeners would typically receive in a live

¹³The use of diverse music also helps certain students to realize the value of applying aural skills to their own performance and listening repertoires. My students complete similar contextual listening exercises for music by Phil Collins, Journey, Perez Prado, and Louis Armstrong; for a film-music clip by Howard Shore; for string quartets, piano concertos; and for theme-and-variations works for bassoon and orchestra and for cornet and wind band, among others.

EXAMPLE 8b. Hummel, Sonata for Flute and Piano, Op. 50, mm. 1–18

Allegro con brio

The musical score is presented in four systems. The first system shows the beginning of the piece with a forte (*f*) dynamic. The second system includes a *dolce (p)* marking. The third system starts with a measure number '10'. The fourth system includes a *cresc.* marking. The piano part features a rhythmic accompaniment of eighth notes with various articulations and dynamics.

performance setting. This concession is essential in light of the fact that these activities by their very nature dictate to students what they're to listen for. In the case of the Hummel excerpt, for instance, a first hearing might be required simply to become oriented to the lengths of the phrases and the soundscape of this flute-and-piano texture prior to attending to the specific elements of melody, harmony, and phrase structure probed by the worksheet's questions. But contextual listening is essentially different from a transcription exercise wherein the student is required to notate every aspect of a performance with a

EXAMPLE 9a. Contextual listening exercise on “Castle on a Cloud” from *Les Misérables* (underlined content represents material that is to be supplied by students completing the exercise)

“Castle on a Cloud” from *Les Misérables*, Alain Boublil and Claude-Michel Schönberg

This song begins with a pair of verses set to the same music as shown below. Each verse has four lines.

First verse:

There is a castle on a cloud
I like to go there in my sleep
Aren't any floors for me to sweep
Not in my castle on a cloud

Second verse:

There is a room that's full of toys
There are a hundred boys and girls
Nobody shouts or talks too loud
Not in my castle on a cloud

1. Provide solfège for the words of the first line of the verses' music.

There is a castle on a cloud

Do re me re do do ti do

2. What diatonic chord is tonicized in the second line?

This line tonicizes III (the relative major).

3. With what kind of cadence does the third line end?

A deceptive cadence (V–VI).

4. After the pair of verses, a contrasting bridge section appears. With what kind of cadence does the bridge end? What solfège is used in the vocal melody to decorate the cadential chord (on the words, “She says, ‘Cosette, I love you very much’”)?

The bridge ends with a half cadence. The singer uses sol neighboring repeatedly upward to le:

She says, “Cosette, I love you very much”

Fa sol le sol le sol le sol le sol

large or unlimited number of hearings. The goal here, rather, is to model the creative application of aural skills to a scenario that begins to approach a “real” musical situation, thus encouraging what Gregory calls *ethos*, a “particular configuration of... intuitions and powers of language, imagination, judgment, and reasoning.”¹⁴ By showing students the sorts of things they *should* listen for in varied, pre-selected

¹⁴Gregory, “Disciplines or Students,” 33–34.

EXAMPLE 9b. "Castle on a Cloud" from *Les Misérables*, mm. 3–15

The musical score is presented in two columns. The left column contains measures 3 through 11, and the right column contains measures 12 through 15. It features vocal lines with lyrics and piano accompaniment with chord diagrams.

Column 1 (Measures 3-11):

- Measures 3-4: *COSETTE:* There is a room in a castle that's on top of a cloud.
- Measures 5-6: There is a room that's on top of a cloud.
- Measures 7-8: There is a room that's on top of a cloud.
- Measures 9-10: There is a room that's on top of a cloud.
- Measure 11: There is a room that's on top of a cloud.

Column 2 (Measures 12-15):

- Measures 12-13: There is a room that's on top of a cloud.
- Measure 14: There is a room that's on top of a cloud.
- Measure 15: There is a room that's on top of a cloud.

Chords shown in the piano accompaniment include Am, C, F, G, E, E+, C/E, and E.

Castle On A Cloud from *LES MISERABLES* Music by Claude-Michel Schonberg Lyrics by Alain Boublil, Jean-Marc Natel and Herbert Kretzmer Music and Lyrics Copyright © 1980 by Editions Musicales Alain Boublil English Lyrics Copyright © 1986 by Alain Boublil Music Ltd. (ASCAP) This edition Copyright © 2017 by Alain Boublil Music Ltd. (ASCAP) Mechanical and Publication Rights for the U.S.A. Administered by Alain Boublil Music Ltd. (ASCAP) c/o Spielman Koenigsberg & Parker LLP, Richard Koenigsberg, 1745 Broadway, New York NY 10019, Tel 212-453-2500, Fax 212-453-2550, rkoenigsberg@skpny.com International Copyright Secured. All Rights Reserved. This music is copyright. Photocopying is illegal. All Performance Rights Restricted. *Reprinted by permission of Hal Leonard LLC*

musical contexts, I imply strongly how they *can* listen for these and other elements in their own musical lives.

It's worth noting that there is nothing new about either using real music to build an aural skills curriculum or encouraging students to listen more broadly than a couple of phrases. As early as 1974 Gary Wittlich published an ear-training text that proceeds from carefully selected musical literature.¹⁵ More recently, several aural skills textbooks have integrated exercises that get students listening for particular events in real music,¹⁶ and in a related vein, Brian Alegant and Matthew Santa have each provided curricular approaches to help students hear formal elements in authentic musical contexts.¹⁷ My particular goal is to assist students in developing a sophisticated *ethos* for engaging with heard music. This process begins with the tonal elements they learn to identify in “music-in-the-laboratory” dictation activities, leads to recognizing those elements’ significance when they manifest in contextual listening activities, and ultimately cultivates sensitivity to those kinds of elements in all their listening beyond the classroom. Modulation constitutes an example: students are trained to recognize, say, a modulation to the relative major in a minor-key harmonic dictation, then to identify it in free musical contexts (as in “Castle on a Cloud”) when prompted by contextual listening exercises to identify a modulatory target. Repeated practice (and assessment) in recognizing such a modulation in real music provides the means to identify modulations and their tonal goals, but also—and far more critically—encourages sensitivity to modulation as a significant event to *be* tracked. If this example is multiplied by the many other musical parameters and events to which we ask students to attend, then after the aural skills sequence is completed and left behind, this absorbed practice “turns into forms of... cognition that shape students’ intuitions and that strengthen their powers of language, imagination,

¹⁵Gary Wittlich, *Ear Training: An Approach through Musical Literature* (n.p.: Harcourt Brace Janovich, 1974).

¹⁶Karpinski, *Manual for Ear Training and Sight Singing* (New York: W.W. Norton, 2006); Joel Phillips, Paul Murphy, Elizabeth West Marvin, and Jane Piper Clendinning, *The Musician's Guide to Aural Skills*, 2nd ed. (New York: W.W. Norton, 2011); and Jones, Shaftel, and Chattah, *Aural Skills in Context*.

¹⁷Brian Alegant, “Listen Up! Thoughts on iPods, Sonata Form, and Analysis without Score,” *Journal of Music Theory Pedagogy* 22 (2008): 149–76; and Matthew Santa, *Hearing Form: Musical Analysis with and without the Score* (New York: Routledge, 2010).

judgment, and reasoning"¹⁸—in short, it turns into an *ethos* of musical listening that transforms their overall engagement with heard music.

This "solution" remains more of an ambition for my curriculum than a fully assimilated component of it. I devote a few quizzes to contextual listening, and I have stocked our course management system with dozens of exercises like those of Examples 8 and 9. I have learned, however, that setting up students for meaningful success in this kind of listening activity requires a large quantity of time and effort from both students and instructors. Finding suitable excerpts to practice hearing particular musical elements, at particular levels of difficulty, and then constructing exercises around those excerpts is labor-intensive. And from the students' perspective, an enormous amount of practice material is essential, because the level of transfer among real, varied musical contexts is less than that from one "laboratory" dictation to the next. (As a surprising illustration, my best students once experienced a crisis during a contextual listening quiz based on an excerpt from a Schumann song because, at least in part, they hadn't received enough practice listening in this way to vocal timbres.) As others before me have almost certainly discovered, encouraging the *ethos* I've described above is not simply a matter of sprinkling a few real-music activities into a curriculum that otherwise requires students to think at the smaller scales of typical harmonic and melodic dictation and melodic singing. Completely rebuilding the curriculum, with the foundational intent of truly integrating contextual listening as a main aspect, is an enormous undertaking, but for me that ultimately may be an appropriate plan of action. (I can also imagine a curricular approach in which contextual listening is the focus of an "aural skills capstone class" that synthesizes and extends the listening techniques engendered by previous coursework.) Of one thing I am certain: for this brand of contextual listening to have the impact on students' cognitive habits beyond the classroom, it must be assessed as part of the course. For most of my students, this kind of entrainment is too difficult and too foreign to their native listening habits to expect that a few in-class demonstrations will provide the necessary incentive to transform their listening *ethos*. However imperfect a given assessment tool or approach may be, assessment is a powerful instrument for aligning students' priorities, in their practice and attitudes, with our best intentions for their musical growth.

* * *

¹⁸Gregory, "Disciplines or Students," 33.

Rogers offers an important reminder about the role of the philosophies that buttress our music theory instruction:

...all aspects of theory teaching—from the presentation of lecture material and drill practice to the construction of curricular models and statements of objectives—should be patterned by design and not by chance. It is not possible to avoid the question of philosophical orientation by eliminating the preliminary (actually constant) soul-searching that is a normal part of setting up or teaching a course; to *not* decide on a particular approach is itself a decision—a decision for confusion and for a course with no bearings (emphasis in original).¹⁹

This warning certainly applies to assessment and its relationship with the rest of the curriculum. In that respect, I have argued here for designing the curriculum, in a large part, *from* the assessment activities—if they truly reflect the skills we want students to master, then teaching “to” them should be synonymous with helping our students toward those skills. It is through sensitivity to students’ misgivings about being tested, and the large space that can separate our assessment tools from our aims for those students, in and beyond the classroom, that we have an opportunity to transform aural skills classes. Instead of being viewed as hurdles to be cleared en route to a bachelor’s degree, they can become the place that undergraduates themselves understand as a station where they build a foundation towards productive and satisfying habits of listening and audiation—where they learn not only how to hear and identify particular musical phenomena, but where they begin the life-long process of patterning their minds to assimilate music, from the stage or from the score, efficiently and accurately.

My narrative above is ultimately a personal one. The concerns surrounding aural skills assessment in my program likely differ, in kind or acuteness, from those of some or many readers, and the decisions I made in light of those concerns no doubt vary in their relevance to other pedagogues’ curricula and students. Some of the ideas I propose above may even prove to be inept in the context of a different teacher, institution, or student demographic. Whether this is the case or not is secondary to the objective set forth at the beginning of this essay: to foster more contemplation among all of us who teach and manage aural skills classes about the ways in which we measure student progress and success in those classes.

¹⁹Rogers, *Teaching Approaches in Music Theory*, 15.

In the physical sciences, the Observer Effect is the change rendered to a phenomenon by virtue of observing it. Attaching a voltmeter to a circuit in order to measure its voltage, for instance, inevitably affects that voltage because of the electrical load of the voltmeter itself. A similar effect inexorably characterizes the relationship between aural skills assessment and the curriculum to which it is attached: the ways in which we measure student success in a class will themselves have an impact on that class and the students in it. It is essential that pedagogues take notice of that impact and account for it in the choices they make when designing both curricula and assessment tools.

Works Cited

- Alegant, Brian. "Listen Up! Thoughts on iPods, Sonata Form, and Analysis without Score." *Journal of Music Theory Pedagogy* 22 (2008): 149–76.
- Benjamin, Thomas, Michael Horvit, and Robert Nelson. *Music for Sight Singing*. 6th ed. Boston: Schirmer, 2013.
- Duker, Philip, Anna Gawboy, Bryn Hughes, and Kris Shaffer. "Hacking the Music Theory Classroom: Standards-Based Grading, Just-in-Time Teaching, and the Inverted Class." *Music Theory Online* 21, no. 1 (2015).
- Gregory, Marshall. "Do We Teach Disciplines or Do We Teach Students? What Difference Does It Make?" *ADE* [Association of Departments of English] *Bulletin* 141–42 (2007): 32–39.
- Ives, Charles. *Essays before a Sonata, The Majority, and other Writings*. Edited by Howard Boatwright. New York: W.W. Norton, 1961, reissued 1999.
- Jones, Evan, Matthew Shaftel, and Juan Chattah. *Aural Skills in Context: A Comprehensive Approach to Sight Singing, Ear Training, Harmony, and Improvisation*. New York: Oxford University Press, 2014.
- Karpinski, Gary S. *Aural Skills Acquisition*. New York: Oxford University Press, 2000.
- . *Manual for Ear Training and Sight Singing*. New York: W.W. Norton, 2006.
- Phillips, Joel, Paul Murphy, Elizabeth West Marvin, and Jane Piper Clendinning. *The Musician's Guide to Aural Skills*, 2nd ed. New York: W.W. Norton, 2011.

Rogers, Michael. *Teaching Approaches in Music Theory*. 2nd ed. Carbondale, IL: Southern Illinois University Press, 2004.

Santa, Matthew. *Hearing Form: Musical Analysis with and without the Score*. New York: Routledge, 2010.

Smith, W. Stephen, with Michael Chipman. *The Naked Voice: A Wholistic Approach to Singing*. New York: Oxford University Press, 2007.

Wittlich, Gary. *Ear Training: An Approach through Musical Literature*. N.p.: Harcourt Brace Janovich, 1974.

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