How to Get the Most Out of Your Orchestra Rehearsal

Session Presenter:
Robert Gillespie

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Effective Practice Instruction in Large Ensembles

Abstract: Helping young musicians learn how to practice effectively is a challenge faced by all music educators. This article presents a system of individual music practice instruction that can be seamlessly integrated within large-ensemble rehearsals. Using a step-by-step approach, large-ensemble conductors can teach students to identify and isolate difficult passages, select appropriate practice strategies, and make improvements to their playing. This model of practice instruction draws on Albert Bandura's concept of observational learning, as well as music education research.

Keywords: band, junior high, middle school, modeling, observational learning, orchestra, practice, rehearsal

Sarah is a seventh-grade trombonist. She participates in band at school and practices three to five times a week at home. Sarah enjoys band and always completes the weekly practice log that her teacher, Mr. Parker, assigns. Mr. Parker writes practice assignments on the homework board in the front of his classroom, and Sarah carefully copies her practice assignment into her planner each day at the end of band rehearsal.

In spite of her conscientiousness and desire to succeed, Sarah often becomes frustrated or distracted while practicing. She does not have a quiet practice space at home or an established routine when she practices. Sarah's mother wants to help her daughter and has recently begun to set a timer for thirty minutes each time Sarah practices. This way, her mother hopes Sarah will be less frustrated and able to focus all her attention on practicing until the timer goes off.

Sarah practices between 100 and 120 minutes each week, enough to earn an A on her practice log. Most days, Sarah focuses at least twenty minutes of her practice session on the sections of music that Mr. Parker assigns for home practice. Despite her good practice habits, Mr. Parker has noticed that Sarah continues to make similar mistakes in her band music as well as on her weekly playing tests. Although Sarah regularly practices the sections Mr. Parker assigns, certain passages seem to trip her up each time.

The examples in this article form a blueprint for using modeling as a means of effective practice instruction for young musicians.
aragraph is not atypical in her practice behaviors and challenges. Many young musicians—even those who practice regularly—have difficulty making improvements on their own, whether in rehearsal or during home practice. Developing the skills needed to become musically independent is one of the most important yet most challenging goals for students in a large-ensemble rehearsal setting. Music educators are responsible for equipping students with the tools and strategies necessary to be effective, independent practitioners. One way to approach this challenge is to examine the concept of self-regulated music practice.

**Self-Regulated Practice**

Much of the research literature about music practice incorporates self-regulated learning theory. Self-regulated learners are those who are “metacognitively, motivationally, and behaviorally active participants in their own learning process.” Advanced, self-regulated musicians are able to set specific goals for their practice sessions, engage in strategic planning, self-instruct, use effective strategies to accomplish goals, and assess their own performance.

Results of music education research suggest that while advanced musicians are able to effectively use strategies such as slowing, adding on, or “whole-part-whole” repetition for the improvement of overall performance, younger musicians are considerably less productive and less self-regulated in their independent practice sessions. It should be noted, however, that young musicians who do exhibit self-regulatory characteristics are more likely to practice harder, achieve greater success, and be more confident in their abilities than are peers who do not possess the tools necessary for self-regulated practice.

**Practice Strategies**

Performance success is correlated not with practice time but, rather, with the number of accurate trials of a given piece or passage during practice. That is, the quality of students’ practice may actually be more important than the amount of time spent practicing. Although music educators may rightly believe that regular or frequent practice is necessary, particularly in the early stages of learning how to play an instrument, they must find ways to help students increase the accuracy of their independent practice through productive use of specific practice strategies. Teaching practice strategies in the context of large-ensemble rehearsals may be one effective way to accomplish this.

Students who organize their practice time through goal setting are likely to achieve higher levels of performance than those who do not. Practice records and logs are often used as tools in guiding students’ independent practice. There are, however, frequent discrepancies between the practice strategies students are able to articulate and the strategies that they actually use during independent practice. This suggests that students may need to be made more aware of the strategies they apply or omit when practicing. Even when students are made aware of various practice strategies, however, they often lack the knowledge or ability to make use of specific strategies for the purpose of error correction during independent practice. Additionally, given the demands associated with strategic practice, motivation may play a role: students who are more motivated to practice tend to articulate and implement more practice strategies than do students who are less motivated.

Middle school instrumentalists most often use repetition as a practice strategy. However, results of observational studies of students’ practice sessions have indicated that while students may repeat passages of music, they often fail to correct errors, and as such, practice mistakes repeatedly. Other practice strategies commonly identified, though not necessarily used by young musicians, include slowing, use of a tool (e.g., metronome, method book, CD), simplification through clapping, counting, naming notes, pinpointing difficult sections, analyzing the key or meter, and adding on. These strategies are typically more effective than repetition alone. However, even when students are able to identify a variety of practice strategies, observational studies of practicing have shown that students most often run straight through music, using few strategies and rarely stopping to fix errors.

Given the data about typical practice behaviors of young musicians, it is evident that some type of practice instruction is needed. Practice instruction may increase students’ ability to identify and implement appropriate practice strategies, thus improving productivity during individual practice sessions. One way to introduce practice strategies in large-ensemble rehearsals is through modeling.

**Modeling**

Modeling practice behaviors may be a way to increase students’ practice efficacy (belief in their own ability to achieve successful music practice), practice motivation, and successful use of practice strategies. Psychologist Albert Bandura discussed observational learning as one of the key components of his social cognitive theory of learning. Observational learning is also known as imitation or modeling, and it encompasses four main components: attention, retention, motor reproduction, and reinforcement.

First, students must give their full attention to significant features of the modeled behavior. Second, students must encode modeled behaviors into their long-term memory. This process is known as retention and could occur through students’ verbal description of a particular modeled behavior. Third, motor reproduction must occur. Students need to be able to independently reproduce a modeled behavior. This means that students also possess the physical capability to perform the modeled skill. Finally, students need to receive positive reinforcement for correctly demonstrating a modeled behavior.

For a teacher to effectively model a behavior or strategy for a student, the modeled behavior must be relevant to a student’s circumstances. That is, modeling or describing a practice behavior...
outside the context of a piece of music is considerably less effective than demonstrating an effective practice strategy based on a piece of music that students are currently learning. For example, demonstration of slow practice in a passage of students’ music containing difficult sixteenth-note runs would be helpful, relevant, and ultimately effective.

Although there are several types of models, the most relevant modeling practices in this context are live and cognitive modeling. A live model is an in-person demonstration of a particular skill or behavior (e.g., a teacher modeling a practice strategy as students observe). Live modeling is a commonly used teaching tool in ensemble rehearsals. Teachers often model technical or stylistic elements of music for their students. Cognitive modeling, perhaps a less-frequently-used technique, involves explicitly talking through a thought process about a specific skill or situation. Cognitive modeling, used in combination with live modeling, may be an effective means of helping young musicians increase their application of useful practice strategies and independent practice productivity. The suggestions in the following section are just a few examples of ways in which, using modeling as a tool, practice strategies can be introduced and rehearsed in large-ensemble rehearsals.

Practical Application

Music education researchers have suggested that the way to increase students’ capacity for effective independent practice may be to provide practice instruction. How, though, within an already jam-packed rehearsal schedule, can instrumental music teachers find the time to incorporate practice instruction? The following set of activities is just one possibility. Each practice strategy activity could take place in as little as ten minutes. When working with younger or less experienced groups, however, it may be helpful to spend as much as fifteen to twenty minutes working with these strategies. As each practice strategy can be introduced and rehearsed using concert repertoire, practice instruction doubles as repetition of challenging sections of students’ concert music.

Using Frank Ticheli’s “Portrait of a Clown,” I have devised a one-week practice instruction plan that allows for time spent modeling and reviewing specific practice strategies. First, I created a lead sheet from the “Portrait of a Clown” score. A lead sheet is a collection of melodic and accompaniment figures from a given piece of music, written out, usually using music notation software, so that the full ensemble can practice them in unison. (All figures in this article are published courtesy of Manhattan Beach Music.) This is a helpful teaching tool, particularly when the music educator is working with young or inexperienced groups, as it allows for unison learning and rehearsal of challenging passages. For more experienced ensembles, the use of lead sheets cuts down on wait time for all sections of the ensemble and affords all students the opportunity to practice challenging musical material. (The unidentified quotes in this instruction plan are the teacher’s words.)

Monday: Slow Practice

- **Performance difficulty:** This recurring melody (Figure 1) presents a technical challenge for students. The fast tempo, combined with melodic skips and chromaticism, creates a need for independent practice.
- **Cognitive model:** “When I approach a melody like this that is technically challenging, I know that I will be more successful if I use my metronome to slow down the tempo and practice until I am able to play it perfectly.”
- **Live model:** After describing and labeling the cognitive model, the teacher demonstrates how to practice using a metronome to play through this phrase at an appropriately slow tempo (as opposed to the 160 beats per minute marked in the score).
- **Student practice:** After modeling, students must have a chance to practice the skill of playing through the phrase slowly. This can occur individually or as a group. Following practice, there should be a brief
discussion of whether students found this strategy to be helpful—and this applies to all strategies. Additionally, students could be asked to identify other passages in “Portrait of a Clown” as well as passages in other pieces of music where slow practice might be helpful.

Tuesday: Adding On

- **Performance difficulty:** This recurring melody (Figure 2) still presents a technical challenge for students. While yesterday’s “slow practice” lesson may have been helpful for some students, others are still stopping or giving up in the middle of a phrase.
- **Cognitive model:** “When I see a challenging section like this, I know that it might be helpful to start by playing just the first few notes, and then gradually add more and more.”
- **Live model:** Following the cognitive model, the teacher demonstrates the technique of adding on. In this case, it may be helpful to ask students to watch their part and finger along. The teacher plays the following (Figure 3):

![FIGURE 3](source: Frank Ticheli, “Portrait of a Clown” (Brooklyn, NY: Manhattan Beach Music, 1988)).

If students are more technically proficient, this strategy could also be used with larger segments of music—perhaps beginning with two measures and adding two measures at a time, eventually building up to playing the entire phrase.

- **Student practice:** This particular practice strategy lends itself to an “I play, you play” activity. Alternatively, students could be given two to three minutes to practice this skill independently.

Wednesday: Whole-Part-Whole

- **Performance difficulty:** Rather than slurring groups of notes as written (Figure 4), students have begun to slur parts of this phrase, seemingly without attention to Ticheli’s markings. In particular, the third and fourth measures of this phrase are challenging for many young players.
- **Cognitive model:** “I’ve noticed in band rehearsal that, although we’re all slurring, not everyone in my section is playing the slurs exactly as they’re written. I’m going to play this whole phrase, then zero in on the part that I really need to practice, and then put that part back into context of the phrase.”
- **Live model:** The teacher plays the whole phrase, making an articulation error in measure 4, where the students have been playing incorrectly. The teacher could then ask students to identify which measure needs the most work and also enlist students’ help to identify the specific error. The teacher then models practicing the measure in question, adhering to the written slurs and asking students to identify when he or she has played it correctly. Additionally, the teacher could model writing a T at the points where articulation should occur.
- **Student practice:** As in all effective modeling scenarios, students must have a chance to practice this strategy following the teacher model. This strategy could be practiced as a class or independently.

Thursday: Chunking

- **Performance difficulty:** Clarinets are having trouble performing each two-measure phrase correctly (Figure 5). One clarinetist has mentioned that this section is difficult because “[the phrases] all look the same.”
- **Cognitive model:** “This section seems repetitive, but the notes actually change slightly each time, which can make it tricky. It will help to break this larger phrase down into two-measure ‘chunks.’”

![FIGURE 4](source: Frank Ticheli, “Portrait of a Clown” (Brooklyn, NY: Manhattan Beach Music, 1988)).

![FIGURE 5](source: Frank Ticheli, “Portrait of a Clown” (Brooklyn, NY: Manhattan Beach Music, 1988)).
Live model: The teacher models playing the first two measures, asking students to follow along on their own lead sheet and to raise a hand when the teacher has performed the first two measures correctly. When the first two measures have been performed correctly, the teacher moves on to the second chunk of two measures. This strategy also lends itself to (1) requiring multiple correct repetitions before moving on or (2) students’ identifying differences between chunks of music, aiding their understanding of the phrase as a whole.

Student practice: This strategy could be practiced as a class (“I play, you play”) or in by pairs of students who practice chunks together, assessing each other’s success before moving on to the next set of measures.

Friday: Self-Recording

Performance difficulty: In a restatement of the A theme, Ticheli varies the articulation for two measures (Figure 6). Students may be caught off guard by this change, or they may not be playing the tenuto articulations in a way that presents enough contrast with the accents and staccato articulations.

Cognitive model: “Every time I play this section, I forget about the tenuto articulations, and therefore don’t play them as well as I should. I’m going to play through this phrase a few times, record myself, and see if I can truly hear a difference.” While all students may not have the equipment necessary to record their practice at home, this type of technology is becoming increasingly prevalent. Some students may already possess a device that will allow them to record and listen to their performance (e.g., a smartphone, an MP3 player, a tape recorder, or software, such as GarageBand or Audacity).

Live model: The teacher turns on a recording device and models playing through this phrase several times. The ensemble then listens to the recording together and makes a judgment about whether the difference in articulation was noticeable or provided enough of a contrast. The teacher could also model repetition of this process to truly achieve the desired result.

Student practice: This strategy could easily be practiced in an ensemble setting. The teacher could record the full ensemble performing a line from the lead sheet in unison, or could record various sections of instruments separately, and then ask students to listen and assess the overall success of articulation.

Practice Logs

Modeling and rehearsing practice strategies in the ensemble setting is the first step toward helping students achieve greater success in their independent practice. Practice logs should include details such as excerpt practiced, strategy used, and time spent. In addition, it may be helpful to ask students to evaluate their level of success with each excerpt. This could be accomplished through asking a question as simple as “Does this excerpt need more practice?”

The practice log system is in contrast to the “number-of-minutes” approach to keeping track of practice time. In the beginning, teachers can also choose to provide students with practice targets (i.e., technical or musical challenges and where these challenges occur in ensemble repertoire) as well as appropriate strategies, scaffolding the experience until students have gained enough experience to diagnose and select appropriate strategies on their own.

As students accumulate knowledge of more strategies, “Practice Strategy Potpourri” may be a helpful in-class activity. In pairs, in sections, or as a full ensemble, students can identify challenging sections of music and then select strategies that may be appropriate to use in practicing those sections. This activity can be limited to one piece of music, or it can be opened up to include all pieces in students’ folders. Practice Strategy Potpourri can also serve as a starting point for formulating goals to be included as assignments in students’ practice logs, and rehearsed through home practice. Ultimately, it is crucial for students to begin taking responsibility for the identification of difficult sections, selection of appropriate strategies, execution of strategies contributing to individual improvement, and reflection on effectiveness of execution.

Effective Strategies = More Musicianship

The examples provided in this article are in no way exhaustive, but they are...
intended to be used as a blueprint for practice instruction. The combination of cognitive and live modeling is a powerful tool, as it provides young musicians with a system for thinking about musical problems as well as executing practice strategies successfully. When weighing the cost versus the benefit of dedicating a portion of rehearsal time to practice instruction, the value seems clear: practice strategies can be taught through concert music. This provides an opportunity for repetition and solidifying challenging elements of the repertoire while also equipping students with the tools necessary to become more constructive in their home practice. As young musicians gain the ability to practice productively, their levels of individual musicianship and accountability increase. By modeling effective practice strategies, music educators can assist young musicians in becoming more thoughtful, deliberate, and ultimately, more effective in their independent music practice.

NOTES


5. McPherson and Renwick, “A Longitudinal Study.”


7. Miksza, “Effective Practice.”


16. Ibid.


18. Ibid.

Examining Progress across Time with Practical Assessments in Ensemble Settings

Abstract: This article provides the rationale for effective music assessment that tracks individual progress across time and offers examples to illustrate assessment of a range of music-learning goals. Gauging progress across time helps students become more mastery-oriented, while showing more effort and positive attitudes. As instruction and assessment become more focused on individual students, practices such as private lessons within the group setting and individual performance assessment emerge. Examples based on current strategies used by practicing teachers illustrate these practices.

Keywords: assessment, instruction, performance, progress

What essential skills do preservice teachers need to be able to assess their ensemble students effectively and fairly? Although our expertise is in different fields—one of us is a music educator and the other is an educational psychologist—we both have experience working with future music educators. In this article, we provide a rationale for effective music assessment that tracks individual progress across time and offer examples that illustrate assessment of a range of musical goals using best practices.

Importance of Assessing Progress

One of the most powerful motivators we have seen in classrooms—for teachers as well as students—is concrete evidence of student progress. Our observations dovetail with thirty-five years of research demonstrating that articulating goals energizes learners and provides them with direction. Furthermore, concrete feedback on progress toward those goals enhances motivation and learning by providing opportunities for needed adjustments in efforts to reach the goals.

Gauging progress toward goals is also important to help students focus on their own learning more than simply on their grade or on comparing themselves to others. Research has shown that even in our competitive society (and classrooms), teachers can help their students become more mastery-oriented and less centered on comparisons to and judgments of others. Such practices produce students with more positive attitudes about learning who are willing to attempt challenging tasks and exert more effort. Classroom assessment strategies stressing individual improvement across
time and emphasizing the importance of student effort are a key facet in eliciting this kind of motivation from students.3

Our teacher education program and many others capitalize on this research about the value of progress monitoring by requiring teacher candidates to complete an “internship work sample” (IWS). During student teaching, the teacher candidates design goals for a music unit that generally lasts one to two weeks. The candidates measure student understanding and skills before the unit, they teach the unit, and then they measure gains in student understanding and skills after the unit. A typical music unit could address a particular musical element (e.g., form, style, texture) or a music composition to be performed by an ensemble, including all of the musical skills necessary to give a high-quality performance of the selected composition.

**Teacher-Centered Instruction**

We have found that our music education students have difficulty devising practical and useful assessments that track individual progress across time. They and their mentor teachers, especially beyond the elementary level, focus primarily on the musical performance of the larger group. Typical large-ensemble rehearsals tend to become teacher-based and reactive.4 The director detects an error, stops the group, announces the error, and begins again with the whole ensemble either from the beginning of the current musical selection or at the nearest rehearsal number. The teacher addresses the individual or small section responsible for the error. Out of frustration, teachers often assign playing tests to resolve individual performance errors. We have found that this type of performance assessment produces fear and anxiety rather than an opportunity for students to become better musicians.

Many teachers see insurmountable barriers to implementing more effective assessment of individual progress. These barriers include performance pressures, large numbers of students in music classrooms, poor teacher-student ratios, and time limitations.5 Beyond the typical error correction in rehearsals just described, instruction and assessment tend to focus on the whole group, with the teacher directing and making decisions.5 Common ensemble and class assessments include unison tizzling (sizzling, hissing, buzzing), counting aloud, clapping, and chanting rhythms and syllables. Such assessments may help improve the group performance, but they cannot provide a systematic measure of individual student progress. As instruction and assessment become more focused on individual students rather than the group, other approaches are needed.

**Student-Centered Instruction**

Because the IWS requires individual data, instruction must become more student-centered. When we began this process, the music faculty decided that recording the entire ensemble and listening as an adjudicator to solve large-ensemble problems would address the assessment requirement. But the need to document individual progress compelled us to look at student-centered assessment and instruction. The teacher can no longer listen from a distance and hide errors to make the large ensemble sound better. We must focus on individuals and their improvement over time. As an added benefit, improved performance of individual students should also result in better overall ensemble performance and higher motivation.7

Moving from teacher-centered classrooms and assessments toward student-centered classrooms and assessments has become the goal. As instruction and assessment become more focused on individual students rather than the group, practices such as (1) private lessons within the group setting and (2) individual performance assessment emerge.

**Private Lessons, Group Setting**

Ideal music instruction, whether in a general music classroom or a secondary large ensemble, can be viewed as a private lesson within the group setting. Individuals should be contributing artists in the process of a musical creation.8 The responsibility of teaching individuals should far outweigh any large-group assessment. The private lesson within the group setting exemplifies a more student-centered mindset. In addition to being proactive rather than reactive, it offers students the opportunity to (1) make musical judgments, (2) think critically, (3) become more invested in the ensemble’s musical product, and (4) become more interactive in the daily process of music making. Students assist with error detection and offer solutions to problem areas within the music. Instead of framing playing tests as punishment for lack of preparation, they can be viewed as part of the process of preparing for a performance or learning about music. Students identify and discriminate errors in style, balance, attacks, releases, and note and rhythm errors through recorded examples of the ensemble or during daily rehearsals.

The teacher guides the students to success. Students in the class are taught that each will be given individual focus, but that in the music classroom, it takes place in front of the ensemble or class. All students in the group are expected to respond to the teacher just as they would in a private lesson (verbally and with eye contact). All students should come to class with the understanding that they are part of a musical creation and that it is an ongoing process that will result in a performance, which may or may not be better than what they produce in the rehearsal hall.

If an error is made by an individual, the teacher should use that moment as a teachable moment for the entire group. Students can be taught that errors are not bad. Instead, errors benefit everyone in the ensemble by allowing the teacher the opportunity to teach. Students respond well to the thought that musical performances are never perfect, and that because performers are not computers, they should expect errors. Musicians strive for perfect technique, but every great performance is marred by error even though the error may be too small for most listeners to detect.

Students can be encouraged to use critical listening as they participate in the assessment of problem excerpts in the music being rehearsed. Directors should
begin this process by identifying problem areas in the group’s performance and questioning students. The following scenarios demonstrate informal assessment strategies.

In measure 51 of Frank Ticheli’s Sanctuary, the melodic line is to be played by Alto Saxophone I and Horn I and II. The part is marked to be performed nobly starting at mezzo forte. This beautiful melody sings forward through several dynamic levels, including three crescendo/decrescendo phrase markings. Using the private lesson within the group setting model, the teacher would ask the saxophone and horn sections to perform the passage with the expectation that all players in the ensemble would be listening critically. After the excerpt is played, the teacher would question the listeners with such questions as “What is the written dynamic of this excerpt?” “How many crescendos did you hear?” “Did the horns move with the alto saxophone?” “Did you hear any intonation problems?” and “How would you perform this excerpt more musically?” This type of interactive rehearsal allows all students in a large ensemble to be actively engaged throughout the rehearsal and trains their ears to discriminate.

When performing the first four measures of Ralph Vaughan Williams’s English Folksong Suite, third movement, “March,” the woodwinds may have difficulty matching articulations. To solve this problem while teaching each individual, it is necessary to identify the section or players performing the passage with the desired style, and then ask all students to identify which section(s) meet that desired standard. If the problem persists, the excerpt can be further isolated so that the students can hear the problem and resolve it.

Systematic assessment of individual progress can be woven into this process using simple rubrics, checklists, or rating scales. For example, using the rating scales in Figures 1 and 2, both teacher and students could rate aspects of a performance of an excerpt at several points across rehearsals to document progress and see gains over time. Similarly, a director can anticipate a specific place in a piece that may be problematic for each section (e.g., making sure all sixteenth notes are even in a sixteenth-note run for the clarinets) and then design a brief rating scale to use at two different points across the period of preparation for a piece. Comparison of ratings by both instructor and individuals within
each section can yield important data for discussion, evaluation, and further instruction. The instructor may need to take a few minutes of class time or find an alternate sectional time to slowly practice the problem area with the clarinets. The difficulty may be a result of errors in fingerings, tempo, pulse, or rhythm, and the student may be practicing the error instead of solving the problem. Many times, directors will identify the error but leave out the critical step of teaching how to resolve the error.

### Individual Performance Assessment

Noting an ensemble’s progress as students prepare a piece for a performance is one important element of examining musical progress that benefits student and teacher. In addition, the need to observe and track individual students’ increasing skill and musical understanding as they progress through a music program across time is the second key element.

A key element of individual progress over time is skills development for solo and group performance. Assessment tools for individual progress may include recorded excerpts and using SmartMusic or a combination tailored to instructional needs.

An example of the use of recorded excerpts comes from Beverly Laney at South Pointe High School in Rock Hill, South Carolina. Laney determines the music excerpt to be assessed in a choral class on a given day. She informs the students that they will be recording this excerpt so that they can prepare outside of class. She distributes eight handheld recorders and labeled blank cassette tapes. The ensemble sings the material to be assessed, and eight students record their performance while participating within the group. The recorders are then passed to other members of the ensemble, and this continues until all students have had the opportunity to record the excerpt. Using the recorders allows students to sing freely and eliminates performance anxiety that may be caused by singing alone in front of their peers. The students hand in their cassette tapes after all students have recorded, and Laney listens to the excerpts and assesses them using a performance rubric. This type of individual assessment allows for each student’s musical growth in the areas of voice quality, diction, technical development, and intonation. Laney makes comments at the end of each tape, offering encouragement, praise, and instruction. Students are responsible for listening to themselves sing and to Laney’s comments. This encourages self-assessment and allows students to hear their improvement over time. Laney mentions that these recordings offer her students “virtual voice lessons” within a group setting. The choral classes at South Pointe record once or twice during each nine-week grading period. Laney finds that assessing sight-reading with the same process works well. She does note that it is necessary to change to a different sight-reading excerpt or line each time the recorder is passed. In response to the concern that she must listen and assess student cassettes outside of class, Laney says that she would rather listen to music than grade papers like teachers in other disciplines.

To take this idea one step farther, music teachers can design a standard yet simple rating form to be kept in a folder that could be kept across time, documenting individual student progress across semesters and even years on the basis of recordings such as Laney’s. Such documentation can be energizing for students and teachers to see progress beyond a single piece or short-term effort. See Figure 3 for an example.

Beverly Laney also offers an individual assessment for general music classes or lessons that can be assessed by answering true or false, or by making a choice between two options. Examples of these units include learning about one’s performance instrument (instrumental or voice) or music theory and history. Promethean Interactive Whiteboards allow music teachers to use voting clickers within the ensemble or class. Each clicker can be assigned a student name or set up for anonymity. Laney uses the clickers to guide her instruction, so she chooses for

### FIGURE 2

**Rating Form for Key Element of Quality of an Excerpt from *The Hounds of Spring***

**Reed—The Hounds of Spring Excerpt, measures 16–22**

Using the following scale, please rate the woodwinds’ ability to play the sixteenth notes with rhythmic clarity.

<table>
<thead>
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<th>1</th>
<th>2</th>
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1 = numerous individual errors (uneven or incorrect notes)
2 = few individual errors (uneven or incorrect notes)
3 = clear with a steady beat by all players
**FIGURE 3**
Rating Form Using Recorded Excerpts
**Winthrop School District Music Department Student Assessment—Secondary**

Name ________________________________________________________________ Instrument ________________________________________________________________

<table>
<thead>
<tr>
<th>Assessment Period</th>
<th>Date</th>
<th>Excerpt</th>
<th>Performance Fundamentals</th>
<th>Note Accuracy &amp; Intonation</th>
<th>Rhythmic Accuracy</th>
<th>Musical Interpretation</th>
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<td><strong>Year 1</strong></td>
<td>September 1–October 15</td>
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**Rubric:**
1 – Student performs with more than 5 errors and with an immature level of musical expression based on years/months of experience.
2 – Student performs with 3–5 errors and with an inconsistent but more mature level of musical expression based on experience.
3 – Student performs with 0–2 errors and with a consistent and mature level of musical expression based on experience.

**Performance fundamentals**—posture, instrument-body relationship, hand position, posture, characteristic tone quality (resonant with clarity, enunciation)

**Note Accuracy & Intonation**—correct fingerings, pitches, and marked articulations, intonation in all playable/singable ranges

**Rhythmic Accuracy**—performance of printed rhythms, pulse stability, and tempo

**Musical Interpretation**—phrasing, style, dynamics, attacks, releases, shape
students to remain anonymous. The class views the results on the whiteboard in a pie-chart format.

Mike Doll, former band director at Rawlinson Road Middle School in Rock Hill, South Carolina, uses SmartMusic technology. This relatively inexpensive software allows students to record an excerpt given specific directions. It also makes a digital recording of the music for the student to review before submitting his or her score. Doll can look at the assessment score and offer additional feedback on other musical elements, such as dynamics, intonation, and style, from the recording that is submitted. He can also make written comments, which can be viewed by the student or the parent by logging in to the SmartMusic Gradebook. In addition, SmartMusic provides a record of the time spent practicing the example and the tempo that was achieved. Doll reports that SmartMusic technology has been “the biggest change in the way I teach in fourteen years, and it permeates everything I do.” Doll uses SmartMusic assessment tools for scales, all-state band preparation, method book assignments, and preparation of large-ensemble music. The program has improved to the point that it can serve instrumental music students at all levels. Numerous concert band compositions, solo arrangements, and skill-building exercises, as well as more than twenty band and string method books, are included, all with accompaniment and all with assessment. In addition, SmartMusic has the capability to allow any composition that is written using Finale software to be converted into a file that can be used for assessment in SmartMusic. This feature is useful for high school marching band arrangements, all-state band preparation, and concert band compositions that are not currently in the SmartMusic library. If the composition is not in SmartMusic, but you have a recording of it, you can simply import the recording to be used for practice and recording purposes with your students.

Doll chose Richard Saucedo’s “Flight of the Thunderbird” for performance with the eighth-grade band. SmartMusic has two “Flight of the Thunderbird” performance assignments specific to each instrument. Doll has set up the Gradebook portion of SmartMusic, and the students enroll in the appropriate class as users. Doll sends the assignment to each student in the band, and the student pulls up the assignment that is an excerpt with instructions for “Flight of the Thunderbird.” The student records the excerpt at the tempo established by Doll either at home or during band time in one of two practice rooms. Students can practice and record the excerpt until they are happy with it, then submit their work to Doll. He is able to listen to the recorded excerpts within a recording of a complete ensemble.

In terms of tracking individual student progress across longer periods than a single piece, SmartMusic provides opportunities for analysis and archiving individual student progress in a relatively efficient manner that is useful for student and teachers. There is a portfolio within SmartMusic to archive examples of student performance over time. Students can be tracked from their entrance into the music program in sixth grade until the time they exit the program in twelfth grade with recorded examples of their performances.

Of course, a program such as SmartMusic is only one component of an effective music program. Teachers must offer students not only written feedback or scores through technology but opportunities for students to work with the teacher for brief periods of interaction to guide them toward their performance goals.

Engaging Students

As we have explored ways to look at individual progress, we have been able to encourage our student teachers to do so as well. One intern recently designed an IWS around Robert Sheldon’s “Eagle Mountain Overture,” in which he focused students on improving articulation. His assessments included peer critiques of specific articulations within instrument groupings and instructor’s evaluations before the unit and after the unit on each student’s performance of articulations required in the composition.

Teaching at all levels for most music instructors has always included engaged student involvement and interaction. The responsibility of teaching preservice teachers, and specifically, the IWS, has clarified our thoughts and subsequently our instruction concerning assessment with our students, both in the ensemble setting and in the classroom. It has enriched our thinking about quality assessment that enhances individual musical skills related to performance as well as to music appreciation and discernment. Helping our teacher candidates focus on these issues makes them better music educators. They also learn to foster progress and greater love for music among their students.

NOTES

Developing Listening Skills through Peer Interaction
Erik Johnson
Music Educators Journal 2011 98: 49
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http://mej.sagepub.com/content/98/2/49
Developing Listening Skills through Peer Interaction

Abstract: Teachers who conduct ensembles of any ability level know that many skills are required for students to successfully participate. Often neglected or overlooked are the skills that students must have to interact musically with their peers. This article focuses on listening as a way to help make successful ensemble collaboration a reality. The method comprises three levels of listening that provide structure for student interaction in an ensemble rehearsal. Interaction is divided into three levels driven by what students hear, giving students the ability to organize an overwhelming number of possibilities into manageable segments. Based on peer teaching research as well as real-life application, this article addresses the ability of teachers to shape a participant structure where all students are given the chance to have a voice and develop individual ownership. By giving individual students and peers the opportunity to solve musical problems, the traditional teacher-centered power structure of the typical ensemble rehearsal is redefined. The benefit of raised awareness based on listening and musical interaction in a rehearsal can also fuel creative development in other areas of the music curriculum, such as composition and evaluating music and performance.

Keywords: conducting, creativity, ensemble, listening, peer interaction, practice, rehearsal, senior high school

Active listening in ensembles where participants are part of the decision-making process can promote greater student engagement in music learning.

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It is the last period of the day as Sarah, Matt, and Michael unhurriedly walk to band rehearsal at Central High School. Sarah plays second clarinet, Matt plays second trumpet, and Michael plays mostly keyboard percussion. The band has been learning the same three pieces for the past four weeks. As some of the most motivated students in the band, Sarah, Matt, and Michael sit down in their chairs and get out their music. They think silently to themselves a familiar thought, “I’m tired of working on the same things every day. I never get the chance to share my ideas about the music!” As the rehearsal begins, their teacher, Mr. Smith, announces that they will be working on “The Gum Suckers’ March” again. Mr. Smith calls out the measure numbers, and they begin. He stops after sixteen measures and tells the trumpets and clarinets, “No, it’s too heavy—listen to Michael play it on the xylophone.” Michael plays the part. Mr. Smith then adds the trumpets and clarinets. After four measures he says, “Good!” and moves on. But Matt, the second trumpet player, knows it was not good; he continues, silently frustrated.

Music is an aural art form in which listening skills are essential to successful...
collaboration with other musicians. As strong musicians ourselves, we music teachers know the importance of collaboration in a rehearsal. To collaborate successfully, students must perform at tempo with correct notes, articulation, and dynamics. Additionally, students must have well-developed concepts of phrasing, intonation, and tone quality. These aspects of musical production and performance are constantly and often very well addressed in band or orchestra rehearsals led by a conductor. Often neglected or overlooked is the development of skills that students must have to interact with their peers for a successful outcome. These collaborative skills include how to create balance, blend, tone color, and mutual phrase direction. In two different studies, Lucille Alexander and Laura Dorrow, in 1983, and Andrew Goodrich, in 2007, highlight peer interaction as substantial to the development of individual musicianship.

What follows is a simple idea using listening as a way to help make successful ensemble collaboration a reality. I have tried to distill approaches to peer interaction suggested in modern pedagogical literature and apply them to the ensemble rehearsal. Use of this rather straightforward technique, in my experience, can improve not only the “product” of the ensemble—its performance in concert—but also the quality of musicianship developed by each member of the group.

Participant Structure in Music Ensemble Rehearsals

The first step in creating successful collaboration in a rehearsal is to understand the underlying power structure that is present. Traditionally, conductors have held the majority of power in ensemble rehearsals, whereas ensemble members are primarily receivers of information. This leaves the ensemble member with only the power to prepare his or her own part and to listen to what the conductor says.

The traditional participant structure is focused primarily in one direction: from the teacher to the student. Anything that happens beyond that occurs largely through informal means. For example, if a conductor were to focus his or her attention on intonation in the clarinet section, it would be a matter of chance whether the trumpets picked anything up that would increase their ensemble skill.

Recognizing the need to have everyone engaged and learning, a conductor will often ask the trumpets to listen to what is being said to the clarinets in hope that some transfer of information will happen without providing any direct instruction. The problem with this type of participant structure is again that the instruction is primarily in one direction. The student, even when attentively listening to the clarinet, is left with relatively
little power to develop a deeper understanding of the important concepts being addressed. On a practical note, it is often intimidating for students to ask questions in this traditional participant structure, where information flows primarily from the expert teacher to the novice student—and this is particularly true when the student is not in the group or section being specifically addressed.

Change the Participant Structure

Traditional instruction, identified in a 1995 publication by James Wertsch and Chi-kako Toma as initiation-response-evaluation instruction (IRE), creates a limited, univocal participant structure. In an IRE scenario, the teacher initiates a response by asking a question for which the student is aware that there is a “correct” or sought-after answer. Any response the student makes to the question will be evaluated as correct or incorrect. If the answer is correct, the student is praised. If new learning takes place. Overall, the student has control over only his or her individual preparation.

Changing the participant structure in a classroom transforms the power structures in a learning situation as well. As the participant structure is changed, the students are introduced to environments where the power structure is not yet determined, and they feel more empowered to voice their own opinions. Classrooms with an interactive participant structure, in which students are given the opportunity to share and develop knowledge with their peers, can lead to a much more meaningful learning environment. A situation where no authority figure is present to validate or contradict a student’s opinion, even those students who otherwise typically remain silent often will participate in discussion. Thus, those who generally feel that they have no power in a learning environment can take advantage of a participatory learning opportunity. This is the great strength of peer interaction in learning.

For example, as the teacher works with the clarinet players on intonation, it is the teacher’s sense of pitch that determines what the individual players should do. A clarinet player may well be able to hear that a note or a chord is out of tune, even if unable to discern whether the pitch is sharp or flat. Unless directly asked by the teacher to comment on the pitch, however, the clarinet player is highly unlikely to raise his or her hand and volunteer a comment. Indeed, it is far more likely that the teacher will tell the student how to make the adjustment. Removing the authority figure from a musical ensemble by enabling peer interaction is a powerful way to encourage student participation and active learning, with far-reaching beneficial effects on students’ playing and overall approach to music.

A participant structure that is designed to encourage student-to-student interaction allows the clarinet player to collaborate with a stand partner or other section member, experimenting with different pitches and developing a deeper understanding of intonation. This manner the students take responsibility for their own learning in a way that engages their attention, involves their active participation, and fosters their ability to listen and adjust. Such an interaction also builds a sense of working together, so essential for ensemble performance. And it lets the students build skills that will transfer to their playing in general, so that what was a specific exercise designed to improve one spot can have ripple effects across a player’s way of thinking about and creating music in general.

A Listening-Driven Participant Structure

Designing a participant structure that focuses on active listening is essential. Imagine if the vignette at the beginning of this article had gone something like this:

As the rehearsal begins, Mr. Smith announces that the ensemble will be working on “The Gum Suckers’ March” again. Then something out of the ordinary happens. Mr. Smith says, “We have been working on this music for a while now. Raise your hand if you have ever had an idea that I haven’t thought of to make this music better?” After a brief hesitation, most of the ensemble raises their hands. Mr. Smith responds, “Today you will get a chance to make some of your ideas happen.” Sarah, Matt, and Michael’s interest is piqued, and they sit up in their chairs. Individual enthusiasm is higher than it has been as the students share their ideas with each other. As the rehearsal progresses, the ensemble improves dramatically as students focus on listening and collaborating. Because of the ideas generated during rehearsal, many students stay after the period ends, engaging in spontaneous, student-led sectionals.

This revised approach, based on listening, creates a participant structure driven by student interaction. No longer does Mr. Smith show the students what to do by guiding their attention to things that need to be fixed, but rather, he provides a forum for students to discuss and discover new ways to collaborate for themselves.

In the following, I have outlined a method to assist in making student-led collaboration a reality.

Levels of Listening

Broken down into simple levels of listening, ensemble skills can become transparent and easily understood. The following is a description of what I call the “Three Levels of Listening” that can help students and teachers isolate ensemble skills into practical and manageable segments.

1. Level 1 Listening: Anything that is heard or observed as needing collaboration between two musicians performing the same part (e.g., two players playing second clarinet needing to match the pace of a decrescendo and release, or the length of staccato articulation; two tuba players needing to stagger breathe to create continuity in a phrase; two flute players matching tone quality to improve intonation).
2. **Level 2 Listening**: Anything that is heard within a section of instruments that is in need of collaboration (e.g., a section of trumpets playing a major chord where a crescendo needs to be led by the lowest sounding note; low reeds matching and balancing a specific pitch or sonority; first and second flutes sounding in octaves where the lower note must be played more strongly; two percussionists playing toms and bass drum that together create a compound line).

3. **Level 3 Listening**: Anything that is heard within the entire ensemble that could be made better through collaboration (e.g., principal string players communicating phrase shape together by deciding what instruments hand lines off to each other and when that must happen; horn and euphonium sharing a melody in unison that must be in tune and accented in the same spot; upper woodwinds playing a line that must be accented together where tone matching is very important).

The idea behind the creation of discrete levels of listening is that sections of rehearsal time can be devoted to allowing students to talk and rehearse together in one of three levels. The students decide for themselves whom or what part to approach. Even in an environment where students have developed only limited listening skills, the teacher simply needs to outline each of the listening levels to the students, identify what level needs to be addressed, and let the students interact with each other for five to six minutes. Students will begin having conversations built around their knowledge level, conversations that will naturally develop and deepen over time as their listening skills improve. Students who have better listening skills will help develop these in students whose skills are less developed.

Having rehearsed this way, I can testify to the success of this approach. The students typically interact on a very sophisticated level, which often provides invaluable information to me as the teacher about their understanding. In my experience, it does not take long for students to start asking to see the score so they can visually confirm a collaboration that needs to take place!

### Reciprocal Interaction

Beyond the typical norms of respect and decency, the only rule that must be set concerning student interactions is that the interaction must be reciprocal. The conversation must not be dominated by one person. Students who give ideas and comments should expect comments in return. To facilitate reciprocal input, students are asked to turn in a short, individually completed slip—to be stapled to their partner’s slip—with details about what was discussed (See Figure 1.)

### Zone of Proximal Development

At first glance, teachers seeing this type of interaction among students may perceive it as something of a controlled chaos. However, in spite of the chaos, it becomes apparent very quickly that individual student knowledge, ability, and attitude spread throughout the ensemble. This is an example of what Lev Vygotsky called the “zone of proximal development.”

In the “ZPD,” a person with less experience or less ability can perform above his or her ability level when there is a joint problem-solving goal shared with someone who has a higher level of ability or experience. The ZPD creates an opportunity for individual growth just by providing the presence and interaction of another, more expert person. A participant structure based on listening levels allows students to be pulled into the ZPD through interactions with other students—a process that develops and teaches collaborative ensemble skills.

The scope of the interaction that takes place in this kind of rehearsal is manageable and productive. Simply saying, “Okay, let’s have a five-minute level 2 listening rehearsal on measures 48 to 65” gives the students a specific and manageable task through which they can be productive and learn. The approaches to listening they explore in this exercise enrich their approach to music overall, with noticeable benefit to the ensemble both in passages addressed directly by the students.
and in other passages not specifically discussed as well.

Subconsciously, skills are also developed through the listening exercise and the benefits of the ZPD that can be applied to myriad other situations the students might encounter. Deborah Hicks, in a study published in 1996, called this “intertextuality,” a means for constructing knowledge by the transfer of skills from multiple contexts. In the case of the listening exercises described here, these include but are not limited to social interaction skills, metaprocessing, and critical thinking.9

**Peer Interaction and the Third Space**

Peer interaction in the form of peer teaching in the music classroom has been identified as an effective way to promote student interaction, raise student achievement, and boost student confidence.9 As a participant structure, peer teaching in music provides students with the opportunity to develop authority, ownership, and confidence. These benefits enhance the strength of their identity as musicians as well as their technical skill.

In an article published in 2007, Andrew Goodrich described peer interactions occurring across a yearlong study of an excellent high school jazz ensemble in rehearsal as the primary foundation of student success. Students verbally interacted with each other by frequently asking questions, making comments, and modeling on their instruments. The power of this participant structure was totally in the students’ hands, which allowed them to have a high degree of authority and ownership.6

Goodrich’s work explores not only the benefit of varied participant structure in rehearsal but also the so-called third space identified and described in 1999 by Kris Gutierrez, Patricia Baquedano-López, and Carlos Tejeda.7 The third space is an arena beyond the traditional roles of the teacher and student, in which student interest and discourse drive the curriculum. In the third space, student comments driven by individual and collective interest work as a means to connect the gap between the previously established curriculum and what is genuinely interesting to the student.

The teacher’s role in the third space is to listen and guide student comments in a way that supports the curriculum of the course. In the third space, student comments are given serious attention not just by the teacher but also by everyone in the room. Listening-based participant structures in rehearsal provide an optimal forum for productive peer interaction and the development of a constructive third space.

**Student Ownership**

Opportunities to develop ownership of skills and ideas are provided when using a participant structure that allows students to share knowledge. Randi Engle and Frank Conant describe four guiding principles for fostering productive disciplinary engagement: problematizing, authority, accountability, and resources.8 Through an empowering participant structure such as the Three Levels of Listening, students can work with others to address different ways to achieve a desired sound. Students assume authority to make decisions about which musical objectives, among the thousands of possibilities, need immediate attention to create a higher-quality performance. Through the process of reciprocal conversation, students hold each other accountable by agreeing or presenting an alternate view.

The resources in this scenario are the students themselves and their shared knowledge. Of course, the teacher and the score are always available when an item, topic, or technique needs clarification. At that point, the expert teacher can steer the students toward a variety of additional resources, including recordings, technical exercises, tuners, metronomes, breathing devices, and so on.

Listening-based participant structures that allow students to share ideas offer a vibrant alternative to traditional IRE discourse patterns. The IRE learning structure often results from situations in which a teacher feels under time pressure to share information and “educate” students by dispensing cherished knowledge. Even a few minutes devoted to a listening-based active learning project transforms the participant structure in a classroom. Active listening—based participation empowers students, giving them the opportunity to develop ownership of their ideas and engage in persuasive discourse. Such a rich learning environment (described in 2004 by Lindsay Cornelius and Leslie Herrenkohl) in which every student is given a voice also can address issues such as social barriers, motivation, and self-confidence.9

**Modification and Future Directions**

Developing student ensemble skills through a discourse-intensive participant structure is a great way to address development of listening skills. Ideally, many other types of instruction will be used to complement this method and address the varied experiences a student needs to receive a high-quality music education.

However, this listening-based strategy can also help support elements of the music

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**Additional Resources for Encouraging Peer Interaction**


curriculum beyond performance skills. For example, placing an emphasis on listening-driven interaction addresses an important skill for chamber ensemble collaboration. Students can also develop a more complete understanding of a composition, such as chord structure, through peer interaction. Perhaps the most useful element of this method is the individual responsibility required of each member of the ensemble. Creating a forum for interaction has as its underlying premise the assumption that each student has something to bring to the table. Thus, they must be prepared.

Modifications to this strategy can be made for different situations. When a teacher is pressed with an urgent deadline, such as an upcoming performance, a more traditional approach might be used to get the ensemble ready more quickly. However, as music educators, we must ask, “What are the students getting out of this experience that will help them develop as musicians and in turn, allow a lifelong passion for music to develop?” Giving students the opportunity to share their knowledge and ideas with their peers is a great way to enliven and generate enthusiasm for musical collaboration.

Flexible and powerful, listening-based peer interactions can change the participant structure of a musical ensemble temporarily to encourage and develop listening skills, interactive skills, and student ownership of their own learning.

Notes


Don't Watch Me! : Avoiding Podium-Centered Rehearsals

John P. Graulty

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What is This?
Don’t Watch Me!

Avoiding Podium-Centered Rehearsals

S

o many conductors regularly implore their ensembles to “watch me!” But do they really want to relieve their ensemble members of their equal—perhaps even greater—responsibility in the music-making process? I think not. One of the main objectives of rehearsal should be to encourage the ensemble members to become maximally engaged participants in the music-making process through increased self-awareness, thus freeing the conductor to focus on those responsibilities that are uniquely his or her own.

In my years of working with both student and professional ensembles at many different levels, I have found that ensemble members tend to approach the ensemble rehearsal process somewhat passively, thinking that it is primarily the conductor's responsibility to do the bulk of the listening, monitoring, and correcting. Perhaps this is because ensemble members have been trained from their earliest student experiences to focus on the conductor and to serve and respect the “maestro”—the “teacher”—the one we all must please, the “checker,” the fixer of all problems, the judge and jury of musical “correctness.” I was always dumbfounded when, even as a collegiate conductor, students would occasionally approach me asking to be excused from an upcoming rehearsal by saying, “I can't make rehearsal tomorrow, but I know my part,” as if the primary reason for rehearsing was for the conductor to check in on individuals' abilities to execute their parts correctly and accurately. How do students have such a shallow understanding of the rehearsal process, and how is it they reduce sublimey beautiful ensemble music making down to mere part checking? They have come to understand, from years of podium-centered rehearsals, that ensemble music making is nothing more than delivering their part to the conductor for inspection and commentary.

In professional ensembles, too, although the relationship may be a bit different, the reality is often the same. Professionals believe the conductor (perhaps because he or she is paid more than the rest?) should shoulder the bulk of the responsibility for musical accuracy and quality. In fact, they often demand it. I can recall playing clarinet in a professional chamber orchestra with a colleague who enjoyed reminding the conductor regularly of his awesome responsibility. For example, when this particular player discovered an absolutely obvious note error in the part, rather than simply correcting it and moving on, the individual insisted on stopping the rehearsal and asking the conductor to correct the mistake, wasting valuable rehearsal time and annoying the conductor and several other ensemble colleagues.

Conductors also play a significant role in creating a podium-centered atmosphere by encouraging ensemble members to become overly reliant on them. Due in part to well-developed egos, a lack of confidence in the ability of the ensemble members who actually make the music, or simple naiveté, many conductors insist on placing themselves at the center of the music-making process all the time, correcting this, dictating that, controlling everything! In The Creative Director: Alternative Rehearsal Tech-

Rehearsals can be opportunities for partnerships between ensemble directors and musicians in which the players take more responsibility for the quality of the music that is performed.
niques, clinician and conductor Edward Lisk describes how “the amount of time we spend before our organizations activates the analytical-error detector mode within us.” He goes on to warn that “when we are consistently working with formula structure (eliminating errors), a tendency to stifle the students musical potential is possible.” Even from the audience member’s vantage point, the conductor, located front and center, elevated on a podium, seems all-powerful. But as most honest conductors will readily admit, it is not really so. Conductors are not all-powerful. In fact, wielding all the power and control for the performance is, I dare say, not even a desirable end for either the ensemble or the conductor, from an aesthetic or practical standpoint.

Harvard Business School professor Robert Austin and theatre dramaturg Lee Devin, in Artful Making: What Managers Need to Know about How Artists Work, imply parallels between how theatre companies and music ensembles work. In the excerpt below, replace conductor with musician, play with music selection, and script with score:

Individual actor [musician] presentations, done in parallel, will be inconsistent with each other, based on different assumptions about how the play [music selection] will unfold. When the group members convene to try out what they’ve individually prepared, their efforts combine messily, providing ample evidence of the script’s [score’s] lack of controlling detail. But a primary purpose of the rehearsals is, of course, to coordinate.

Devlin and Austin explain that while the play’s director (again, one could easily substitute conductor for director) serves a role in refining the coordination, in many instances, the actors (substitute ensemble members) play an equally important role, through frequent iteration (run-throughs), in coming up with the most workable solutions for pulling the individual roles together into a cohesive whole. It is not all top-down direction.

So, how can conductors unburden themselves by shifting more of the responsibility for good ensemble music making back on the players, where it in reality already resides and truly belongs, especially if the ultimate goal is more effective, spontaneous, and convincing music making? The answer lies in how we rehearse and how we invite the ensemble members to engage in the music-making process. My conducting mentor, Frank Battisti, often proclaimed (as I am sure other great conductors past and present have) that rehearsal is where we come to learn each other’s parts, not our own. How true! But how might conductors, provided they have done all their homework in advance by thoroughly absorbing all aspects of the score and formulating an intimate knowledge of how the parts should fit together, encourage and help ensemble members become aware of other parts, of what is going on around them?

**Build Partnerships with the Ensemble**

When you as the conductor stop the rehearsal to address a challenge, before telling the ensemble why you are stopping, ask them if they know why you are stopping, Pamala Gearhart, retired conductor from Ithaca College, explains her use of questioning in rehearsals;

Instead of telling, ask questions. This hits the old problem of “I can’t play and listen too!” I say, “I am sorry, you have to do both.” I may ask, for example, “What is out of tune in this chord? Why did I stop? What was wrong? Can you tell me who has a parallel line with you? Who has an answering phrase to you?” Or, “Can the third horn sing the viola part?” The brass plays and I say to the second violins, “Tell me, what did Borodin write dynamically for the brasses?” All this makes them move active instead of passive.

I often tell my ensemble members that if they are listening as attentively as I am, they should have a good idea why I am stopping before I tell them why. If they do not know, before blurting out an answer or corrective advice, try the section again, and ask the question, again. If they still do not know why—and they should know why if they are truly engaged in active listening—simply raise their aural awareness by offering a small clue as to what you are hearing, and try the passage again. “I try to have them involved with problem solving with whatever musical and technical problems that occur in the rehearsal . . . Instead of just giving an answer I might go through a variety of appropriate things for the particular issue that always involves them,” says conductor Larry Rachleff, at Rice University’s Shepherd School of Music. After all, this is not one of our primary objectives as a conductor, to guide the ensemble members’ listening so that they can make subtle corrections in execution? Although this may seem like an inefficient and time-consuming process at first, the goal is to jar the ensemble members out of the passive rut of delivering their part to the front desk and waiting for an inspection and correction from the conductor.

Again, Rachleff reminds us, “The more we involve [ensemble members] in decision-making as we guide them, the longer the learning remains, and the more they can transfer it to other situations.” It also has much more impact, for example, if the percussion section hears from the trumpet section, rather than the conductor, that they seem a bit too heavy in a particular section. This kind of shared rehearsal process increases musical sensitivity among and between sections exponentially! In the end, if they begin listening to elements of balance, intonation, blend, articulation, phrasing, and rhythmic alignment as carefully as I do, the need to stop and “fix” problems will decrease—they will begin to hear and correct problems quickly—on the fly.

A rehearsal process that progresses in this manner engages the ensemble members in a new kind of musical partnership in which many of the traditionally understood roles of the conductor fade away or, rather, are transferred back to the players. For example, players may rediscover that the conductor establishes tempo but does not maintain it—this is the ensemble’s responsibility. Moreover, those responsibilities that are exclusively the conductor’s, elements that cannot be determined democratically, such as pacing, phrasing, inflection, and large formal nuances, begin to emerge with greater clarity, both for the ensemble and the conductor. Perhaps most important, encouraging the players to become more active partners in the music-making process

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increases their sense of ownership, pride, and responsibility in the uniquely wonderful act of ensemble music making—creating music with and between others.

This kind of attentive, responsible listening may be developed even during the tuning process in school ensembles. I have witnessed on many occasions directors going through the entire ensemble holding an electronic tuner in front of each player to correct intonation. Unfortunately, however, electronic tuners often encourage players to bypass the listening process entirely because they turn the process of tuning from an aural exercise into a visual one (is the needle straight up?). Unwittingly, directors are developing their players’ sense of sight rather than their sense of hearing. Used this way, tuners are actually counter to establishing good intonation practices. Why not put the tuner away (after getting at least one player in the ensemble tuned to a standard pitch), and ask other players to comment on whether individual pitches sounded are higher or lower than the reference pitch? When other students in the ensemble know they might be called upon randomly to correct the pitch of another player, directors might be surprised at how much more quiet and attentive the rest of the ensemble becomes during the traditionally mundane and passive tuning process.

Allow players the freedom to give the wrong answer. Austin and Devin write, “Willingness to work at risk is vital in artful making, in part because exploration is uncomfortable. Exploration requires a willingness to supply partial answers, to float trial balloons, to look goofy, and to get things ‘wrong.’” Any truthful professional player will readily admit that it is often difficult to discern whether he or she is sharp or flat to the prevailing pitch. Players know they are out of tune, but which way do they need to head to find consensus? If students seem confused about pitch matching, admit that it is sometimes difficult and encourage them to experiment by bending the pitch up and down until they find consensus. While this may seem time-consuming at first, training students to use their ears in adjusting intonation will have long-term benefits and will ultimately increase rehearsal efficiency.

Listen More than Talk!

From my experience as an ensemble member, I have come to believe that when conductors stop to talk about something they believe must be “fixed” (and music is never “broken” to begin with), most players lapse into what I call “Peanuts mode.” They have been encouraged through years and years of routine rehearsal techniques to be so passively engaged that they hear the conductor speaking as Charlie Brown and his classmates in the classic Peanuts cartoon hear their teacher: “Wa-wa-wa-wa. Wa-wa-wa-Wa-wa!” They simply pretend to be engaged in what the conductor is telling them, wait for the “wa-wa” to end, and tune in to the critical instruction at the end of the diatribe indicating where in the music the conductor will resume rehearsing: “Wa-wa-wa-wa. Let’s start at letter B.” But what if the conductor did not immediately provide the answer? What if, instead of a correction, the conductor asked the players to identify the problem? I have tried it, and here is what happens. The ensemble members perk up, open up their ears, and start listening to what is going on around them and across the ensemble. They take more responsibility for how their contribution is mixing with the whole, because they know they may be called upon at any moment to assume the traditional role of the conductor and comment specifically on how well the process is going. In fact, I am amazed at some of the answers I hear back from a newly awakened ensemble. Sometimes they hear things I missed! As Larry Rachleff reminds us, “A conductor can fool himself by believing the conductor is the only person hearing what is happening in the rehearsal. They will be incorrect if they think that the kids cannot hear.”

Although the best seat in the house for hearing should be on the podium, it often is not, depending on the acoustic properties of the hall or the rehearsal space. When I conducted the Band of the United States Air Forces in Europe on tour, I recall arriving at wonderful concert halls, especially in England, where the stage had built-in risers that were sometimes quite high. At the sound check before the concert, I was always shocked and a bit humbled to hear things I had not heard in two full weeks of rehearsal back in our flat-floor, low-ceiling rehearsal hall in Germany. But that is reality. While conductors must make every attempt possible, they just cannot hear everything. I often remind my forty-piece ensemble that they have eighty ears to my two and to please use them.

Try Monk Rehearsals

A monk rehearsal, as the name suggests, is conducted entirely in silence, except for the music making, of course. The ensemble members and conductor take a vow of silence—no talking for the duration of the rehearsal. All musical communication must be transferred through gesture, and gesture alone. When I first tried this with an ensemble, I experienced an unexpected benefit right at the beginning of rehearsal. The students came into the rehearsal thinking they could not make any sound whatsoever, so the usual desensitizing racket that occurred before most rehearsals, with percussionists bashing away and trumpet players running unsuccessful tests of their high range, was missing. That rehearsal began from an atmosphere of unforgettable quiet anticipation bordering on a sort of sacred reverence—beautiful!

As educator Gerald Olson explains, “Most teachers talk too much; I try to talk little. If we talk too much, there’s no need for them to ever look.” Monk rehearsals, perhaps more than any other technique, underscore the most important functions of the conductor while increasing the ensemble members’ level of engagement in the music-making process. Neither the ensemble nor the conductor can rely on the normal rhythm of knowing that if something goes awry, they can simply stop and talk about it. Both quickly realize that this new reality demands a new kind of clarity and sensitivity that resides only in the interplay between sound and gesture. It is always amazing—and refreshing—to me and my players just how much can be accomplished—even corrected—without saying a word! When intonation problems arise, for example, my only recourse is to visually identify, in a general sort of way, where I hear the disagreement. The players then must zero in with their own ears and find out specifically where the discrepancy lies and find consen-
sus. The players learn that they must read the conductor's gestures carefully, and the conductor realizes that his or her gestures must be absolutely clear and intentional, because they both know that there will be no opportunity to discuss the problem. And what better way to build toward a spontaneous and exciting performance, where the conductor and ensemble must rely solely on the interplay between gesture and sound?

Oddly enough, one of the most difficult matters to address in monk rehearsals, from my experience, is the mundane task of indicating to the ensemble where to begin again. I keep a small dry-erase board on the podium if the charades-style technique of, say, tapping the top of my head to indicate that we are restarting at the top or pointing to my eye for letter F fails. But it is amazing how little I need to resort even to the dry-erase board. My players love monk rehearsals and often beg me to do more of them. They feel monk rehearsals are much more efficient and fun. I must agree. They help the ensemble and the conductor get right to the heart of what is most rewarding and satisfying about ensemble music making—how, with maximum engagement and sensitivity, musicians can partner to achieve beautiful musical gestures without uttering a word.

Some Broader Implications

If ensemble experiences in our education system are really about fostering and developing Bloom’s highest-order thinking skills, including problem solving using multiple perspectives and inputs, we as conductor-teachers must replace traditional podium-centered rehearsals with those that actively and regularly engage all members of our ensembles in deep listening and creative problem-solving behaviors. In an era where iPods and portable CD players have allowed human beings to hear extraordinarily high-quality music in a passive mode anytime, anywhere, as mere accompaniment to other daily tasks, how will I develop the kind of active, acutely aware listening skills I need to be an effective ensemble participant? More important, how will I develop the broader skill of hearing and processing multiple sonic inputs with the sensitivity and awareness to make informed decisions about my place and role in the increasingly complex global society in which I live and function?

Music educator–conductors must fully understand and advocate for the intrinsic ways in which ensemble music making uniquely encourages the development of the following vital important skills: higher-order synthesizing and problem solving, critical thinking, communal responsibility, and empathy. At a time in America when our president is demanding more individual civic responsibility in addressing the fundamental challenges facing our society, we need to promote more democratic ensemble experiences that fully engage individual ensemble members. These core curricular experiences in our schools can go a long way toward countering the notion that ensembles are mere service providers for school ceremonial, social, and athletic functions. Attentive music making offers the kind of experiences that will help our students achieve their potentials in whatever they choose to do in life.

Notes

3. Ibid., chap. 3.
4. Battisti’s personal reflection, shared with the author during a conducting lesson at the New England Conservatory.
6. Ibid., 151.
7. Ibid., 151.
8. Austin and Devin, Artful Making, 117.
10. Ibid., 130.
Constructivist Practices to Increase Student Engagement in the Orchestra Classroom

Bernadette Scruggs

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What is This?
Constructivist Practices to Increase Student Engagement in the Orchestra Classroom

Your students unpack as soon as they enter the classroom. By three minutes after the bell, they are warmed up and ready for their conductor to lead them down new musical paths. You take the podium to work diligently for the next forty-five minutes on the four selections you have chosen for the upcoming concert. Mid-rehearsal, you look around the room and notice that you seem to be the most engaged person in the classroom. Two second violins on the back row are bow fighting, one cellist has his head resting upon his instrument, and a viola player is completing a history homework assignment. How can these students be so “disengaged” while rehearsing such outstanding music?

Rehearsal engagement is an important concept sometimes neglected by conductors. For students, to be engaged means that they are actively involved with the
music during the rehearsal. Even if the director leads a perfect rehearsal, he or she has not necessarily engaged students in a meaningful musical experience. This may be because conductors neglect to ask students for their input in regard to the rehearsal or because the music literature is selected without benefit of student assistance. Another possibility is that directors are less concerned with student understanding than with student performance. All of these practices could be described as consistent with a teacher-centered classroom.

As a teacher with twenty-two years of experience in the ensemble classroom, I have incorporated a broad range of classroom practices. In my earlier years, I used mostly teacher-centered practices because that is the way I was trained. Seven years ago, partly in reaction to being a student again and realizing how difficult it was to listen to an instructor for hours at a time, I began to integrate a variety of constructivist techniques. A subsequent experiment to determine whether small ensembles would increase my students’ musical understandings led to the realization that these student-driven experiences had created the most outstanding students of my career. This research was the real beginning for the evolution of my classroom practices.

**Teacher-Centered Practices**

The arrangement of chairs and stands in the string orchestra classroom is a telling indicator of teacher as leader. All chairs and stands face the teacher. The podium is the epicenter of the classroom. Generally off limits to students, the podium is figuratively a throne for the monarch of the classroom. This typical classroom arrangement is indicative of the rehearsal style of many conductors. Students are in the classroom to provide their individual part of the whole performance, and they accomplish this by following the teacher’s instructions. Good performances are the goal, and whether or not students achieve individual musical growth might be of secondary importance in the teacher-centered classroom.

Teacher-centered classrooms rarely involve students as musical leaders. This may be because so many conductors have been trained in the traditional model of rehearsal techniques where students are required to produce music from their instruments, but not much else. Student musicians are capable of much more than they are typically allowed to share. If students are allowed to provide leadership, it is often in an administrative role, such as taking attendance and filing music. In fact, this type of student assistance provides valuable help to the busy orchestra director. If student aid is beneficial, however, why limit this support to clerical tasks? In light of current educational practice, the teacher-centered practices traditionally incorporated by many conductors may need to be viewed through a different lens to offer students the best possible instruction.

**Constructivist Practices**

The addition of constructivist educational practices could promote student musical understanding and student engagement and provide a student-centered framework for the orchestra classroom. In the 1930s, Russian psychologist Lev Vygotsky described the theories that encompassed social constructivism. Vygotsky’s theories were not well known in the United States until the 1970s, when his works were translated into English. Vygotsky believed that all human learning is formed within a social context. Prior to his work, most learning theories had focused on the individual and had not considered the role of others in the learning process. Constructivism focuses on the understanding process of the individual with the assumption that each learner brings his or her own knowledge to the classroom. Although this knowledge may need to be supplemented, adjusted, or completely revised, it serves as the basis for what will be constructed in the classroom.

To summarize the social constructivist viewpoint, children become members of society after learning from more knowledgeable members of society. Children learn in an interactive social relationship and then internalize what they learn from that relationship until they are able to function independently. This area of immediate potential is known as the zone of proximal development. Bruner and his colleagues describe the task of a teacher in this process as one of scaffolding. The learner and the teacher must work together to construct knowledge. The learner completes the tasks that he or she can perform in a competent manner, and the teacher steps in to offer support, or scaffolding, as necessary. The goal of scaffolding is to put students in their zone of proximal development so they do more than they can do by themselves and work at the peak of their capability, but not beyond. The teacher must determine when scaffolding is needed and when to gradually remove support, a technique known as fading, so that the learner can function independently. Although many subject areas have incorporated this learner-centered theory, most instrumental teachers continue to embrace teacher-centered classrooms.

**Suggestions for Engagement**

Orchestra students can provide various types of musical leadership within the classroom. It is the constructivist teacher’s responsibility to assess each student’s prior knowledge and guide him or her toward an appropriate leadership role. Incorporating individual student strengths, both administrative and musical, into the classroom will enrich the classroom experience for everyone while allowing students to feel ownership in their program. It is important to note, however, that constructivist rehearsal practices are not limited to orchestra classrooms, but can be used effectively by choral (see the sidebar titled “A Constructivist Approach with Choruses”) and band directors (see the sidebar on “Constructivist Approaches in the Band Class”) as well.

**Selecting Repertoire**

As a first step toward engaging orchestra members, all players could assist in selecting concert literature. Allowing student
input on repertoire can be an extremely valuable strategy, but teachers must be certain their students have the foundation to make informed musical decisions. To begin, the directors must facilitate a discussion with student musicians about what constitutes good programming. Programming for festivals or contests is generally different than for spring “pops” concerts, so the reason for the concert and the audience must first be considered. Additionally, the program should reflect a variety of styles, and this diversity should pique the audience’s interest and stretch the players’ musical abilities into their zone of proximal development.

The next consideration of repertoire selection should be the performance strengths and weaknesses of the group. While the experienced director is generally aware of these, students may not be aware of their ensemble as a whole. Students and director should have a frank discussion about their ensemble’s strengths and keep these factors in mind as they sight-read new music. Although the music should challenge the string orchestra, music that is too far beyond the technical capability of any particular section in the orchestra can lead to serious frustration among the members of the group.

After the students are made aware of these musical considerations, the teachers should provide the orchestra with several worthy choices of repertoire and students can participate in deciding on final selections. To aid in finding suitable repertoire, teachers might wish to consult one of the excellent textbooks that address this issue. Teaching Music through Performance in Orchestra, volumes 1 and 2, Strategies for Teaching Strings offer practical guidelines for music selection as well as repertoire lists compiled by many of our country’s leading orchestral educators. Other music suggestions may be obtained from a state music organization’s required performance evaluation repertoire list and from colleague recommendations. Lists, however, do not substitute for a teacher’s discriminating choice of repertoire based on musical value and learning needs of students. Presented with a variety of acceptable choices, students can sight-read through the selections and, after proper preparation, use their skills to make an informed decision of whether or not each piece is a good choice for their concert.

When considering concert repertoire, the last and most significant question for the students and the director is, Will the students, conductor, and audience take pleasure in and gain from the rehearsal and the performance of each selection? Taking time to fully discuss and reflect upon this query should allow only the repertoire best suited to all of the organization’s needs to be performed. Students are captivated by a diverse range of musical styles and are better able to participate in repertoire selection than teachers may realize. If given a choice in concert programming, they will likely be more interested during the concert preparation period, which should make rehearsals more productive.

**Rehearsal Engagement**

The model of most rehearsals is predictable. Students play a brief section of the music, followed by a conductor critique. While the front two rows are usu-
ally on task with their leader, the longer this rehearsal style continues, the more students are lost to inattentiveness. To address this problem, a seat rotation system can be put into place. The type of student who generally sits on the front row will play well in any location, while the back row dweller will be required to remain focused when under the watchful eye of the director.

Although a seat rotation system may keep certain students more directed, for additional rehearsal enhancement, directors could incorporate varied seating layouts on a regular basis. For example, cellos and basses could sit in the front rows of the orchestra, while violins and violas could occupy the back rows. Another seating scenario would allow players to sit where they like within the orchestra without regard to their instrument. If it seems that this “mix-and-match” approach might cause behavioral issues, a variation might be to use an assigned mixed quartet seating. A further seating modification would call for the orchestra to set up either in a circle or in parallel lines, with the director in the middle and the students facing each other. Each of these rehearsal placement adaptations would allow students to hear their ensemble from an entirely different vantage point. Rehearsal engagement and musical maturity should improve through the heightened level of watching, listening, and adjusting that a new seating perspective requires from performers.

Players could be encouraged to contribute to their orchestra education by constantly analyzing their group’s performance. Rather than immediately correcting performance errors, the director can call upon students located all around the ensemble to make their own recommendations in regard to improving performance. When students are not aware of who will be called upon next for an opinion, they will begin to pay closer attention to what is occurring in other sections. Allowing students to self-evaluate is consistent with the constructivist view that assessment should be incorporated into the learning process so that students play a greater role in judging their own progress. Students may not enjoy this technique at first. They have been trained throughout their education to sit quietly in class and to pay attention to the teacher. To listen and then make intelligent and thoughtful remarks requires more energy than some students may initially be willing to expend in class.

To further engage students in the rehearsal process, students can be involved with creating the rehearsal objectives. This could be done at the beginning of each rehearsal or, even more effectively, at the end of the day’s rehearsal. Spending a few post-class moments with students to create plans for the next rehearsal offers a host of added benefits. Students can readily recall what areas need the most attention and which selections received the least concentration during that day’s rehearsal. Additionally, it will give students time to reflect on their daily individual progress. This type of brainstorming activity can also provide an excellent closure activity for the day’s proceedings. Incorporating any of these techniques to improve rehearsal engagement should encourage the meaningful dialogue between teacher and student that is a staple of the constructivist classroom.

### Physical Response to Music

Noticing the students’ level of engagement can assist the conductor with an analysis of time management skills during rehearsals. Unfortunately, what seems fascinating to adult musicians may not hold the same appeal for a student player. Because of this, a teacher may need to ask himself or herself some illuminating questions about the general atmosphere of rehearsals. For example, how long do the students remain engaged in the rehearsal and at what point do they begin to watch the clock in anticipation of the bell? The most vital question to answer is, What techniques are incorporated to allay this response when their attention does wane? Having a store of motivational tools on hand can be valuable when rehearsal pacing becomes sluggish (see “Resources for Increasing Rehearsal Engagement” sidebar). These techniques can be as simple as having the first and second violins swap parts, or having a topical story or joke ready to share. The idea is to change the tenor of the rehearsal when it becomes ponderous. Not only will this energize students, but it may also provide the same result for the director.

Movement is a clear physical indicator of engagement with the music. Students who are involved with the music away while they play. They may lift their scrolls when they make entrances and lift their bows together with the other players for the last note. While some students move instinctively, others have to be coached about when and how to move. Teacher or student modeling can be an effective approach to assist those students with musical movement. When student movement becomes one of the rehearsal aims, not only must the students be more actively engaged but concerts also appear almost choreographed. Students who are truly engaged in their performance are as wonderful to watch as they are to hear. If a director observes that students’ bow arms are the only sign of motion in his or her orchestra, much is being lost.

### Incorporating Student Conductors

When a director’s focus during rehearsal is on the score, paying attention to peripheral events in the ensemble is difficult. An easy remedy for this is to allow a capable student to direct a section of the music, which enables the teacher to focus solely upon the members of the string orchestra. In the beginning, the ensemble may have difficulty playing well for a student conductor, but with practice, the novelty will wear off and students will concentrate on their performance. This variation in the rehearsal routine will allow the director to observe student engagement, posture, bowings, and individual student progress as well as the musical performance. In this role, the conductor continues scaffolding for the class as he or she monitors the rehearsal. To improve the experience for all, directors must make certain that players are respectful of all student conductors, not only the more popular ones.
Selecting Repertoire

Range inspector: Assuming that students are aware of their current ranges and tessituras, students can examine potential pieces for singability. This allows students to have substantive input regarding repertoire used in class. Teachers can certainly limit the choices to ensure specific styles or genres are included in the repertoire.

Rehearsal Engagement

Opposing teams: Begin by dividing the choir into two or three groups (by voice part or ensembles) and have students sing only when conducted by you. Turn to each group at varying times (by phrase or page) to alternate between different groups. This will force students to “audiate” (hear the music internally) when not singing. For an extra challenge, assign a blank wall as a group; silence will ensue when you “conduct” the wall for a phrase. Dividing the ensemble into equal choirs (rather than voice parts) can be a strategy to help students understand the concepts of “ensemble” and “blend.”

Substitute plans: Imagine (if necessary) that you will not be present for the next day’s rehearsal. Ask students to write the lesson plan that the substitute teacher will need to follow. Be as specific about methods, techniques, and time limits as practical. When you arrive the next day, teach the lesson exactly as the students indicated. Discuss afterward about how to improve on the lesson plan next time.

Timekeeper: Give a specific amount of time to rehearsal segments; let a student tell you when time is up; if time expires, you need to ask permission to borrow more time. This works especially well with a student who has attentional difficulties!

Students as Musical Leaders

When the time arrives to hear individual students play, for a seating audition or a performance grade, student leaders can be invaluable in choosing the evaluative excerpts. After the conductor, who best knows the trickiest passages or the sections that require the most musicianship besides the students in the section? Principal players can determine the number of passages to be played and mark other students’ parts. The same players will be on hand to assist their peers with coaching or to answer their questions about the excerpts while the director is hearing other students play. Allowing students to act as leaders in the audition process can provide important assistance to the instructor and improve the performance experience for all players.

Once the evaluative excerpts have been heard, the need for sectionals or individual tutoring may be revealed. Section leaders can guide their contemporaries through the music, especially if the...
Constructivist Approaches in the Band Class
by David E. Myers, University of Minnesota

The suggested approaches for orchestra are easily adaptable to band classes. Here are some additional strategies to consider:

1. **Empower musical leadership and responsiveness.** Without instruments, model a simple axial movement activity or synchronous body percussion. Discuss with students why they were (or were not) able to follow your lead. Continuing the flow, repeat the activity, “passing” the leadership to a student. Use eye contact, a nod, or a hand gesture to indicate the transfer of leadership. The new leader is responsible for continuing the activity. Divide into groups of six to eight students, “passing” the leadership randomly from student to student. Reflect on “cues” used to transfer leadership. Discuss effective leadership qualities. With instruments, take turns modeling improvised pentatonic patterns that are imitated by the group. Encourage leaders to vary expressive qualities. Have students analyze factors that contributed to successful modeling-imitation. Consider how these factors may influence ensemble performance. “Rehearse” a well-known piece without a conductor, while considering how musicians may “lead” and “respond” from within the ensemble. Reflect on the experience. Extend the activity through small-group improvisation in which students take turns “leading” and “accompanying.”

2. **Encourage collaborative problem finding and problem solving.** Divide students into mixed-instrument groups of six to eight players. Select two or three short themes from a work that has not yet been rehearsed. Hand out the notation of the themes in concert key without expressive markings. Assign students the tasks of (1) playing each theme in unison, collaboratively determining tempo, articulation, and dynamics and (2) creating a one- to two-minute composition using the themes. Perform the compositions, having the class analyze the decisions made by each group. Have students reflect on the problems they needed to solve and how they solved them. Project the score on a screen, looking for the themes and analyzing the ways in which the composer addressed the “problems” encountered by the students. In unison, sing thematic excerpts from the conductor’s score, and then play the instrumental parts as indicated. Discuss relationships among the parts, try trading parts among various instruments, and analyze the musical result of the composer’s decisions versus other potential decisions that could have been made.

3. **Discover scale patterns and keys.** Model an ascending major scale on your instrument. Ask students to match the starting tone on their instruments by ear. Maintaining a musical flow, model the lower four tones of the scale, having students echo. Create multiple patterns using these four tones. Repeat with the upper four tones. Model/echo the entire scale ascending, then descending. Have students take turns modeling and echoing patterns using the scale tones. Give the students a different starting tone, challenging them to play a major scale. Have students take turns leading patterns to reinforce pitch relationships. Apply the strategy to minor scales and modes. As students gain confidence performing scales and modes by ear, have them note what they are playing. Compare notation across different instruments, discovering transposition and intervallic patterns. Invite students to name a scale to be played, asking others to indicate the name of the transposed scale for their instruments. Challenge students to identify keys for various pieces of repertoire and to create and lead warm-ups derived from the relevant scales.

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Encouraging Musical Independence

In addition to regular rehearsals with the string orchestra, students should be urged to form small ensembles. Although many string orchestra teachers have students participate in solo and ensemble evaluation experiences, this is usually done for a fraction of each year, immediately before and ending immediately after the event. Many teachers feel uncomfortable about taking time away from rehearsal to allow small ensembles to practice. This need to control the rehearsal time is not unusual; in fact, most instrumental teachers were raised in this tradition and feel uncomfortable about changing the paradigm. However, contemporary learning practices do not support this teacher-centered view of student learning processes, and clinging to a teacher-centered classroom may minimize students’ learning and musical understanding. The incorporation of chamber ensembles in the weekly rehearsal schedule provides an exceptional opportunity to put constructivist teaching methods into practice. While taking time out of class each week to rehearse in small ensembles might seem wasteful at first glance, time invested in chamber ensembles develops students’ musical awareness and increases their ability to work as team members. Small ensembles also encourage students to be musically independent and can give them the skills necessary toward becoming lifelong musicians.

Directors can minimize wasted time by assisting students with music selection. Students sometimes have unrealistic expectations of their ability levels and will choose music that is either much too difficult or too easy. Successful music
Guidelines for a Constructivist Rehearsal Process

2. Ibid.
4. Ibid.
8. Wiggins, Teaching for Musical Understanding.
12. Cooper, Teaching Band and Orchestra.
14. Ibid.

Resources for Increasing Rehearsal Engagement


Creating Leaders

Incorporating constructivist practices and students as musical leaders can promote student engagement in rehearsal. While the benefits of constructivism may not be immediate, the real advantages to these new practices will become evident as the school year continues. Enlisting student leaders will enrich and enliven the string orchestra classroom environment and grant teachers the advantage of new perspectives. Expecting independent learning practices from student musicians will help them to depend upon themselves instead of encouraging reliance on a teacher. These practices will lead to the development of a community of leaders. If students are given the opportunity to create their own understanding of instrumental performance, and if they feel their views are valued, they will begin to realize that they are an integral part of the rehearsal process. When students feel that their presence in class is essential, they become engaged in rehearsal in a way that they never imagined possible.

Notes
Effective Time Management in Ensemble Rehearsals
Joseph Manfredo

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What is This?
Effective Time Management in Ensemble Rehearsals

By Joseph Manfredo

One of the most common problems for school music ensembles is the lack of rehearsal time to prepare for public performances. Many rehearsals are cancelled or shortened due to in-service and vacation days. In addition, because of illness, field trips, and athletic events, not all students attend any one rehearsal. Music directors all too often feel they need to eliminate various parts of the rehearsal—such as proper warm-up, tuning, sight-reading, or exercises for developing students’ musicianship—so that more time can be spent on rehearsing performance literature. This approach can be shortsighted, however, because it doesn’t necessarily help students improve their ensemble performance.

Many factors contribute to an effective rehearsal. The single greatest factor that affects rehearsal success is pacing—the teacher’s ability to effectively manage time during the teaching period. Ensemble directors should strive for a learning environment characterized by a consistent level of positive effort and concentration from students, with a proper balance of time allocated for teacher actions (usually verbal feedback) and for student actions (performance of music).

Directors must make subjective decisions when rehearsing an ensemble, but all directors can and should master certain strategies and methods for effective ensemble pacing. In this article I will share what I have learned from my experiences as an ensemble conductor about managing rehearsal time; I will focus on content, preparation, verbal interaction, and error correction. Items in the Suggested Reading list offer insights of other educators.

**Rehearsal Content**

To effectively manage rehearsal time, ensemble directors should start by carefully considering the types of activities, or content, commonly found in a rehearsal. A typical rehearsal normally includes time for the following:

- Setup for teacher and students
- Tuning (for an instrumental ensemble)
- Warm-up
- Rehearsal of performance literature
- Sight-reading and other comprehensive musicianship activities
- Announcements
- Ending or teardown (putting away instruments, equipment, and folders).

The first step in creating good pacing during the rehearsal is to plan the appropriate amount of time needed for each segment. Figure 1 summarizes how much time is commonly spent on each type of rehearsal activity. Most important, the figure shows that ensemble directors may actually have only thirty minutes out of a fifty-minute period to rehearse music for performance, reinforcing the need for efficient use of rehearsal time.

With so little time for rehearsing music, the director’s first priority is to choose literature that doesn’t exceed the students’ technical capabilities. Directors must also be realistic about the amount of musical content to be prepared for any single concert. It’s much easier to implement effective rehearsal pacing techniques if there’s a reasonable amount of literature to be performed, ensuring that the interpretation of each piece can be fully realized in time. In addition, directors should choose pieces of various levels of difficulty so that all students in the ensemble are challenged but still able to master the entire concert program.
Charles R. Hoffer recommends the “Rule of Three” as an effective strategy for organizing daily rehearsal content. This principle calls for three activities within the rehearsal. That may mean a warm-up and work on two compositions or excerpts during the total of thirty-six minutes assigned to warm-up plus rehearsing literature (see figure 1), or it may mean a warm-up of six minutes and then rehearsal of three compositions or excerpts in the thirty minutes for rehearsing literature. There are many variables that can influence the director’s planning the content of a rehearsal, including the compositions’ length and difficulty, as well as the imminence of the performance.

**Preparation and Planning**

The next step is to be prepared! Each rehearsal must be planned meticulously. A director should not simply list the order of music for that day but should identify specific objectives focusing on the most important musical concepts to be addressed in the rehearsal, as well as activities necessary to attain those goals. A clear purpose for each rehearsal involves focusing on no more than three musical concepts during the rehearsal. Why no more than three concepts? If students are to master any concept, they need substantial time to experience in-depth learning. Limiting the number of concepts within a single rehearsal allows students to address and experience those concepts in a variety of ways throughout the period.

Preparation is not only about developing broad goals and objectives, but also about comprehending your topic—that is, the music being rehearsed. Studying scores and developing a true understanding of the music being taught is crucial for well-paced and sequenced instruction. The ensemble director should understand the music’s compositional techniques (form, harmony, and instrumentation); expressive components (dynamic structure, style, and color); and pedagogical issues (fingerings, bowings, diction, and articulation).

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Effective teachers can judge the proper ratio of teacher talk to student performance.
and so on). In addition to increasing knowledge, proper score preparation allows the ensemble director to hear more accurately on the podium, to rehearse more effectively and efficiently, to demonstrate more self-confidence and the ability to handle any deviation from expectations, and to be more expressive, thereby making the composition come to life for the students.

One of the more important outcomes of effective preparation is that it allows the ensemble director to handle the unexpected events that typically occur in rehearsals. The best planning will never work 100 percent of the time, for it's virtually impossible to anticipate and control student progress and achievement. The ability to "read the group" and make split-second judgments that affect the objectives are important skills that the ensemble director must acquire. That is, "in-flight" decisions must ultimately determine the teacher's response to students' needs.

**Verbal Feedback**

Verbal feedback is a critical issue in rehearsal pacing. Effective teachers must be able to judge the proper ratio of teacher talk to student performance. Research on the effect of teacher verbal feedback on instructional pacing has resulted in significant and reliable recommendations. Numerous research projects have compared the amount of time for verbal feedback between inexperienced (student and novice teachers) and experienced teachers and concluded that experienced teachers spend less time speaking and use more time for student performance than their inexperienced counterparts.

The interaction between teacher and students must be effective because students rely on clear, concise, and unambiguous information. In addition, they thrive on specific feedback, rather than general comments—either positive or negative—to develop a greater appreciation and enjoyment of the music they're playing. Strong eye contact and a personalized style help strengthen communication. For example, directors might limit the number of times they address ensemble sections by their instrument or part (clarinets, violas, or sopranos), and instead, use students' first names. Finally, an occasional humorous comment to reinforce a particular point helps keep rehearsals alive and students on task.

It's best not to stop conducting until you know what you're going to say. Curiously, many young ensemble conductors tend to stop the ensemble if something sounds wrong, but then they pause while they search for something to say—with the result that they revert to the catch-all phrase, "Let's do that again." When stopping the ensemble, the director must know what to say; must provide clear, concise, and specific information; and should focus comments on the goals of that day's rehearsal, so students can better understand their relevance.

**Error Correction**

How much time should a director spend rehearsing any single section of music? This is a common struggle for student and novice teachers. The teacher must determine the balance between too much time, which results in addressing too little musical content, and too little time, which results in lack of mastery of musical content. Hoffer's principle of rehearsal organization, the "Rule of Three," will help those directors who have yet to develop student attentiveness and time on-task is to limit the director's comments to ten- to twenty-second intervals. Keeping verbal directions as concise as possible helps the director to focus on that day's specific goals, maintaining the students' requisite energy and concentration. If students learn by doing, remember that in an ensemble rehearsal the "doing" is playing the music, not listening to the director talk.

Occasionally, however, a thirty-second verbal episode is needed, especially for more complicated excerpts. This extended period allows the director to use teaching tools such as graphic organizers and other visual aids that require more time for presentation. It's been my experience that the complexity of the musical excerpt, as well as the depth of the solution, motivates students to stay on task.

Compared to the director's verbal feedback, student performance episodes must be significantly longer—twenty seconds to two minutes—so that students become more active participants and learners. They need sufficient time to make musical decisions and even fix things on their own. In addition, longer time segments allow students to put the details presented into a broader musical context, providing them with a more in-depth comprehension of the literature. Finally, students enjoy making music and actively performing for extended periods of time.

One final recommendation is to avoid a long series of short, consecutive segments (ten to twenty seconds) of teacher talk and student performance. That often results in poor pacing, student frustration, and an ineffective rehearsal.

![Figure 1. Rehearsal Content During a Fifty-Minute Class Period](image-url)
op spontaneous decision-making skills. Observing master teachers in rehearsal will provide a model to follow. The effective director develops an intuitive feeling, developed through experience, that allows for adaptation of daily performance standards to the situation, whether it's an initial reading of the composition, a first or second attempt to solve a problem, or refinement of the passage. In addition, the ensemble director must take into account the number of rehearsals until the performance.

The solution to this challenge begins with teacher preparation, as discussed earlier. The ensemble director must first determine the objective of that rehearsal—that is, the level of performance students should attain by the end of the day. The key to the successful pacing of error correction within the rehearsal is to determine the objectives in relationship to the entire unit of study—the number of weeks of rehearsal in preparation for a performance. More challenging performance concepts, such as harmonic intonation, uniformity of phrasing, and articulation, should not be addressed during initial weeks of rehearsal. The director should also allow sufficient time to revisit each passage of music previously rehearsed to ensure retention of learning.

Finally, the director should focus all drill and practice on a specific goal when rehearsing an isolated excerpt, so that the rehearsal is structured and deliberate. The director should also use a variety of teaching strategies and rehearsal techniques when practicing the passage to prevent student boredom due to the number of repetitions needed for attaining the goal.

So how can the ensemble director manage the necessary repetitions of an excerpt within a limited rehearsal time? I recommend Robert A. Duke's strategy of rehearsal framing. In this technique, students initially play through an excerpt or section from start to finish, while the director makes mental notes of concepts to address afterward. The next step is to fix the part of the excerpt that needs improvement; but before starting the section, the director must provide specific verbal feedback to guide the students. Those comments should focus students' attention on what they played correctly, what errors occurred, and what they need to do to improve the performance of the passage. Duke calls this identifying the target. The director's verbal feedback has now established a set of goals, or targets, for the students to focus on during the second playing. In addition, the director may wish to limit the number of players as well as isolate the passage through slow practice, partial practice, altered practice, or related practice, followed again by verbal feedback. When the target has been achieved, the ensemble director then incorporates all performers into a final rehearsal of the excerpt.

This method of rehearsing provides time for student performance as well as effective verbal feedback directed toward specifically planned goals. It also creates an energized classroom environment in which students are actively involved in the learning process, giving them a greater sense of accomplishment and satisfaction.

Self-Analysis
To effectively pace rehearsals, all ensemble conductors—young or old—should regularly videotape themselves and analyze their behavior. Reflective self-analysis can be a very productive means of professional development. One of the easiest and most effective methods of self-analysis is to tally the number of verbal comments made in the following categories:

- Specific versus general statements.
- Positive or negative versus directive statements. A directive statement lacks a positive or negative reinforcement but identifies an action; for example, "That needs to be louder."
- Statements that address the planned goals or musical concepts versus statements that do not address those goals.

An ensemble conductor can quick-

Suggested Reading

The following resources discuss classroom management for ensembles:

ly determine the effectiveness of his or her communication with students by tallying and then comparing the ratios among these types of verbal interactions. Effective verbal feedback should be specific and directive. The vast majority of teacher comments must address specific musical concepts in a concise manner. An occasional expression of general satisfaction (“Band, that was excellent”) is acceptable but should rarely be used. Do regularly use positive comments, but focus these toward individuals or small groups; positive comments will be more powerful when they reinforce specific students. Negative comments, on the other hand, should rarely address individual efforts or behaviors. In addition, eliminate any type of emotional content in negative statements. Figure 2 is a template that you can use for reflective self-analysis on effective teacher verbal feedback.

Another useful method of self-reflection focuses on the length of time for each verbal episode. Record a typical rehearsal to examine the amount of time spent on teacher talk compared to time for student performance. In effective rehearsals, a majority of instructional time should be given to student performance, with a smaller percentage to teacher talk.

**Putting It All Together**

Ensemble directors can develop effective instructional pacing in the ensemble rehearsal, beginning with the proper attitude toward rehearsal time—the realization that each minute of instruction is precious. Through proper preparation, verbal interaction, and error-correction techniques, the director can create a lively and well-organized learning environment. The director's podium personality must be energetic and focused so that there is a sense of strong leadership for students to follow. The ensemble conductor can develop these abilities through self-analysis and reflection exercises, which result in a greater understanding and awareness of pacing. Each of these techniques and attributes help with classroom management, student morale, performance standards, and a greater appreciation for music.

**Notes**


![Figure 2. Verbal Feedback Self-Analysis/Reflection Template](image-url)
Assessment in Instrumental Music: How can band, orchestra, and instrumental ensemble directors best assess their students' learning? Here are some evaluation tools and techniques to consider.

Thomas W. Goolsby
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What is This?
Assessment in Instrumental Music

How can band, orchestra, and instrumental ensemble directors best assess their students' learning? Here are some evaluation tools and techniques to consider.

The increasing emphasis on assessment in school districts across the United States has created greater demand for methods of assessing instrumental music programs. Although most music educators recognize that frequent evaluation is an essential component of effective teaching, new mandates and public concerns regarding accountability are additional reasons for band and orchestra directors to expand their use of assessment in ensemble settings.

While increasing systematic assessment initially may seem to be an activity that requires more of a conductor/teacher's precious time, it is most likely an activity that eventually will save time. All too frequently, band and orchestra directors rehearse music for concerts and find themselves repeatedly reminding students of similar performance rudiments for each musical selection. This practice alone should indicate that maximum learning is not taking place. The issue of "transfer of knowledge" is one of the several concerns addressed through evaluation. Creating musicians should be the goal of all band and orchestra teachers—and better musicians will prepare musical selections with far greater ease than students who remain unsure of what is expected of them.1

Types of Assessment

Four types of assessment can be used for evaluation in the instrumental classroom in a relatively straightforward manner; these are placement, summative, diagnostic, and formative assessments. Band and orchestra directors are already familiar with placement and summative assessments, even if they don’t identify them as such. Placement assessment includes auditions, challenges, and seating assignments, all aimed at determining a student’s abilities in order to properly place the student within a program. Summative assessment includes concerts, festivals, recitals, and other events where the final “product” of the group’s learning is publicly demonstrated and evaluated.

The other two types of assessment are usually integrated more closely with day-to-day instruction. Diagnostic assessment is used to determine where learning difficulties exist. While test and assessment writers in mathematics, language arts, and science currently struggle to develop valid and reliable assessment instruments for diagnostic evaluation, instrumental music teachers are already masters of this type of evaluation. Every time a band or orchestra director steps on the

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podium or stands in front of the class, the majority of the teaching events are devoted to identifying problems in learning and then providing a remedy (or at least a quick fix). The most obvious and frequently used tool for diagnostic assessment in instrumental music is error detection.

Whereas diagnostic assessment is concerned with identifying learning problems, formative assessment is concerned with the regular monitoring of students to make sure that learning is taking place. Band and orchestra directors often make the erroneous assumption that if no errors are identified during a rehearsal, then the students must be learning. Research in measuring the feedback provided to students in relationship to what the teachers ask of the students indicates that, during the vast majority of rehearsals, students have no way of knowing whether they are accomplishing what is expected of them. This sense of accomplishment can come only if students are aware of the specific goals of the rehearsal or class—often a secret known only to the director.

Without formative assessment, we have no way of knowing if the students are simply learning our parameters for tolerance of mistakes, or if they are learning something about music. In our rehearsals, we frequently remind them how to execute articulations, dynamic markings, phrasing, and so forth. Doesn't the mere fact that we must remind them so frequently indicate a lack of learning? If time were spent on formative assessment—to ensure that students are learning what we would like them to know—then the concert selections could be prepared with much greater efficiency.

It would follow that one requirement for effective formative assessment is the students’ clear understanding of what they should learn. Periodic evaluation of these objectives and goals is used not only to monitor their learning, but to reinforce them in the students’ minds.

**Checkpoints and Checklists**

There are many measurement tools available to help instrumental teachers evaluate their students’ work. For beginners, instrumental music teachers can select specific selections in the method book as checkpoints for individual achievement. Without applying pressure or creating anxiety, the instrumental director can establish an atmosphere of cooperative learning in a beginning band or orchestra class by giving students many chances to play solo for the teacher and their peers. Such solo opportunities provide the teacher with the means to assess individual progress, especially for aspects of help good young players work toward reducing performance anxiety.

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**Criteria may vary from piece to piece but always should include tone quality.**

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Another assessment tool used successfully with intermediate and high school instrumental classes is the checklist. Especially at the high school level, where the ensemble may comprise three or four grades in one class, a band or orchestra director can devise twelve to fifteen sequential checklists to be completed quarterly by students and reviewed by the director. These checklists may include technical exercises, solo or small-ensemble selections to be learned, written assignments (including theory or composition exercises or written essays on historical themes or individual composers), listening assignments that include written reviews, and reading assignments. Creative directors who are aware of long-term goals for their ensembles will come up with many additional ideas for what may be included on such checklists. The increasing accessibility of computers and software programs for music education will enhance this type of individual assessment, which is aimed at guiding learning.

**Worksheets**

Beginners through intermediate instrumentalists can also be assessed through a variety of worksheets and homework assignments. Directors can easily create worksheets to parallel their goals and objectives and reinforce what they are teaching in class, especially at the middle school or junior high level. Worksheets or elementary theory books are frequently used by private piano teachers. Such workbooks are inexpensive and can be used to provide instrumentalists with a working knowledge of theory that can form the basis of improved sight-reading, including knowledge of such musical elements as key signatures, rhythms, intervals, structural chords, counterpoint, and voice-leading.

Worksheets can also be used to assess basic aspects of music notation, which we often assume the beginning student has learned, when many are actually learning the simple tunes by ear. Worksheets designed by the teacher can be creative and can help both student and teacher assess students’ knowledge of dynamic markings, note values, pitch names, expressive markings, articulations, music terminology, and time and key signatures.

Commercially available elementary theory workbooks can also be purchased for each student and can be used to assess students’ knowledge of such concepts as intervals, simple chord structure, scales, and even chord relationships. Examples of this type of individual workbook include Theory Worksheets for Beginning Band by Denise Gagne (J. Weston Walch), Ready-to-Use Music Activities Kit by Audrey J. Adair (Parker Publishing), Basic Music Theory by Audrey J. Adair (Parker Publishing), Workbook for Band by Forest R. Etling (Highland/Etling Publishing), and Basic Music Theory for the Beginning Band Student by Frank Campise (Barnhouse).
Audiotape Recordings

For members of intermediate and high school ensembles, assessment of individual progress can be enhanced by having students prepare and submit audiocassette tapes of their own performances. Through careful planning, experimentation, and refinement of study material, students can be guided through a five- or six-year curriculum of performance assignments at their own individual pace and ability level. Instrumental teachers can select musical exercises and solo literature to enable students to demonstrate technical proficiency and expressive performance of music selected from the most appropriate and best literature for each instrument—including concert selections.

Specific objectives and criteria for scoring the tapes are required. Criteria may vary from piece to piece but always should include tone quality. If students are asked to provide tapes on a staggered basis and the director is willing to spend two hours per day evaluating audiotapes (including the weekend), then as many as 180 students can submit twenty-minute tapes each month. For the largest of music programs, this would enable an individual assessment of each music student every six weeks; for smaller programs, it might permit assessment every four weeks.

In programs where this sort of assessment has been implemented, one of the first surprises for the director has been the discovery that many students do not know how to practice. This and other types of formative assessment often reveal the inaccuracy of many of the assumptions we make as teachers.

Two outstanding band directors in the Pacific Northwest use the audiotape technique in different ways. Both directors plan a series of technical and lyrical exercises that span a student’s three years in the band program. Jim Rice, band and orchestra director at Woodinville High School in Woodinville, Washington, collects cassette tapes from individuals by section on a weekly basis (evaluating by section allows him a better reference for evaluating tone quality). In two of his bands, clarinets, flutes, saxophones, double reeds, trumpets/percussion, and low brass/horns submit tapes on a weekly basis. All assessment tapes are collected on a single day and returned the next week with written comments as another group of tapes is collected. Rice evaluates approximately thirty fifteen- to twenty-five-minute tapes per week over a six-week period (including orchestra). He is extremely detailed in his written evaluations, commenting on the performer’s strengths, areas that need improvement, areas that have improved (from his detailed records kept for each student), and aspects that require attention; he also makes specific comments on tone quality. For those students who seem to have difficulty improving tone quality, he schedules individual lessons during lunch, free periods, or before or after school to observe embouchure and breathing, check equipment, and provide individual instruction to help his players improve their sound. Students are allowed to record their tapes at home and submit them every six weeks. Rice also provides a practice room equipped with a recording machine for those students who are unable to make recordings of good quality at home or for the older students (some of whom may have an eye toward a college music major) who are striving for the best possible sound. These records of individual student progress are used for determining grades and assigning students to one of the two bands.

Susan Monroe, a band director at Cascade Middle School in Auburn, Washington, has spent the last five years refining a program in which students at three levels are given sequential assignments to record during class periods; these assignments include études, solos, technical exercises, and concert selections. Without disrupting the rehearsals, students quietly go to her office and record as much of their assignment as they have prepared. Usually four students are able to complete the task during each rehearsal. Records of overall progress are posted on a board in the rehearsal room and serve as the basis for seating assignments (changing on an almost daily basis). Students are provided with detailed written comments addressing notes, tone quality, rhythm, articulations, intonation, and expression/phrasing. This technique of effectively using class time allows Monroe to assess each student approximately every three weeks. For those students who are stymied by obstacles, arrangements are made for individual lessons before or after school. Monroe also...
**Ensemble Performance Critique**

<table>
<thead>
<tr>
<th>NAME: ___________________________</th>
<th>CLASS: ___________________________</th>
</tr>
</thead>
</table>

The purpose of this exercise is to compare two performances of the same piece. In the first column, write comments about your playing and then about the performance of the entire ensemble. Point out good points and bad points; use specific musical terms. Consider balance, tone, intonation, rhythm, articulation, etc.

These blocks are for suggestions to improve your playing and the performance of the entire ensemble. “How can we improve? What should we improve?”

In a few weeks, we will perform and listen to the same section and fill in the second column of blocks to make our comparison.

<table>
<thead>
<tr>
<th>Selection Performed __________________</th>
<th>Section of Selection __________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date __________ (first evaluation)</td>
<td>Date __________ (second evaluation)</td>
</tr>
</tbody>
</table>

- Comments on how I sound within the ensemble:
- Comments on how I sound within the ensemble:
- Comments on how the **entire ensemble** sounds:
- Comments on how the **entire ensemble** sounds:
- How could I improve the ensemble?
- How could I improve the ensemble?
- How could the **entire ensemble** sound better?
- How could the **entire ensemble** sound better?

Score for being SPECIFIC: ___________ Score for RELATIONSHIPS: ___________

Score for SUGGESTED IMPROVEMENTS: ___________

*Note: This form is based on a Domain Project form, Harvard Project Zero’s Arts Propel Assessment Profile.*
spends time during each full rehearsal reminding students of the importance of sound quality and how it is influenced by such skills as correct posture, breathing, and embouchure. She makes frequent in-class assessments of these basics.

Rice and Monroe both advocate two simple principles that are well known to instrumental teachers everywhere. First, they insist on the importance of tone quality: no matter how many correct notes are played in the correct spot, if the music doesn't sound good, it isn't good. Second, they make sure that students are aware that the quickest way to fix the overall sound of an ensemble is to have everyone in the group sit with good posture and play with sufficient breath support.

Self-Evaluation

One of the primary goals of music education in general is musical independence. For instrumental music, this goal in part translates to self-assessment, not only by and for each individual, but for the full ensemble. Perhaps the most successful large-scale project of this type has been the Domain Project developed by Arts Propel and funded by the Rockefeller Foundation, Educational Testing Service, Harvard's Project Zero, and the Pittsburgh public school system.4

Figure 1 contains a form derived from the one used in the Domain Projects. Students can use this form to evaluate their own performance and that of the group. Through practice and class discussion, students improve their listening habits and, over a period of several years, become rather astute at listening critically to their own performances.

Copies of this form are kept in each student's band or orchestra folder. As a class, the music is performed and recorded and the director plays both tapes for the students. The first is a reminder of how the passage previously sounded, and the second shows the current level of performance. Students complete the second column by answering the same questions, but this time considering the improvement of the performance (or lack of improvement). This exercise should be completed on a weekly basis using a variety of types and sections of ensemble literature.

The forms are collected after each exercise and scored by the teacher. The designers of Domain Projects encourage teachers to consider three areas in scoring the student's comments (see below). The score for being "specific" (using a given scale—for example, zero to five) is based on the student's accurate use of musical terms and elements and in identifying areas of concern and suggesting solutions. The score for "relationships" is contingent on the student's observation of connections among problems and among solutions. For example, a student who accurately identifies several problems within the ensemble performance would score higher than a student who identifies only a single problem; however, a student who comments on the relationship of one problem to another would score even higher.

Critical to the success of this type of assessment is a class discussion following the first few times it is used and after the director scores the papers. The director, knowing the content of the students' comments, can call on students who made the most astute observations and ask them to read their papers. This assists the less astute or newer students to understand what the task is. In informal studies where this form was used in public school band rehearsals, it was noted with great pleasure by the teacher that some of the most successful students who completed this exercise were "third" clarinets and trumpets—that is, students who were usually less successful in tasks related to performance skills.

Older students who have completed these exercises over a number of years will often develop keen listening skills. These skills will often transfer to students' performances and individual practice sessions. This means that students assume more of the responsibility for correct performance skills is given to the students and rehearsal time is saved if during class discussions it is made clear what objectives can be achieved and how these will lead to good performance skills.

Goals and Responsibility

Two points bear repeating. First, instrumental teachers need to continually share their goals, objectives, and expectations with their students. Second, with these goals in mind, students can assume more of the responsibility for their own learning, but monitoring student learning is still a primary task of teachers.

Checklists and forms can be helpful in teaching critical listening to the...
Assessment in Instrumental Music

continued from page 35

ensemble. Both of these assessment tools can be altered and adapted by any director for any level of instrumental music. These tools may prove particularly useful for directors who attempt to incorporate the content standards found in the National Standards for Music Education. 5

Finally, we must assume that devoting time to assessment will eventually save time in class—time that has been wasted as we have repeated information again and again when preparing musical selections. Our task is to produce musicians, and better musicians will produce better music.

Notes


5. Consortium of National Arts Education Associations, National Standards for Arts Education: What Every Young American Should Know and Be Able to Do in the Arts (Reston, VA: MENC, 1994).
Band and Orchestra Teachers' Rankings of General Pedagogical Knowledge and Skill

J. Si Millican

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Band and Orchestra Teachers’ Rankings of General Pedagogical Knowledge and Skill

J. Si Millican¹

Abstract

Classroom management, presentation, and organization skills are significant predictors in the success or failure of teachers regardless of subject. Elements of this type have been categorized in the literature as general pedagogical knowledge (GPK). The purpose of this quantitative study is to determine if a relationship exists between music teachers’ rankings of importance for GPK variables and the variables related to primary teaching assignment, grade level, teaching experience, and school size. Band and orchestra directors (N = 173) ranked the variables organize and plan instruction; develop rules, routines, procedures, handbooks, etc.; enforce classroom rules promptly and consistently; and develop relationships with students highest of all GPK variables. Some of the findings in this study suggest that band and orchestra directors may approach their time in classrooms differently based on their teaching assignment and grade level. Results give an insight into the specific nature of classroom management as it relates to music settings.

Keywords

general pedagogical knowledge, classroom management, band, orchestra, music teacher education

Secondary instrumental music teachers in public schools operate in a climate that is complex and at times overwhelming (Bresler, 1993). This complexity often thwarts
researchers’ efforts to study the knowledge and skills teachers utilize in classrooms. Successful teachers must combine subject matter knowledge, knowledge of students, general teaching skills, administrative skills, and an awareness of effective sequencing and curricula to positively affect student learning (Darling-Hammond, 2006). Teachers apply this complex combination of skill and knowledge within in a distinct school and community climate that further complicates the selection and delivery of content. In an effort to categorize these components of teacher knowledge and skill, Schulman (1987) proposed a framework that has since been applied to the knowledge and skills music educators use in their teaching (Ballantyne & Packer, 2004; Haston & Leon-Guerrero, 2008; Millican, 2007, 2008).

**General Pedagogical Knowledge**

This study focuses on elements from the category Schulman labeled general pedagogical knowledge (GPK). This particular knowledge and skill set contains elements related to teaching and presentation skills that all teachers, regardless of subject, seem to possess (Schulman, 1987). Elements in this category include classroom management skills, the establishment of rules and routines, and presentation and communication skills. Anecdotal evidence confirms the importance of managing materials and students, effectively communicating with students and their families, and establishing rules and procedures in the instrumental classroom. Much of the non-research-based literature addresses these basic teacher skills and their application to music classrooms.

The research-based literature also supports the practical importance of GPK skills to classroom instruction. Teachers, administrators, and music education professors consistently list GPK elements as key components to professional success in the classroom. For example, when novice teachers rate the overall teaching quality of their mentors, they frequently cite classroom management and communication skills as the two elements of teaching they considered most influential in their ratings (McIlhaga, 2006; Villani, 2002). Principals rate poor lesson implementation and weak classroom management skills as the top two indicators for teacher ineffectiveness (Torff & Sessions, 2005). Music educators value these general teaching skills more highly than they do their musical skills (K. Madsen, 2003; Rohwer & Henry, 2004; Taeble, 1990; Teachout, 1997).

Teacher competency in GPK is a significant predictor of student success in both traditional and music classrooms. One meta-analysis of 11,000 studies into teacher effectiveness indicated that classroom management is the number one factor affecting student learning (Wang, Haertel, & Walbert, 1993). Costello (2005) suggested a moderate correlation between classroom management and communication skills and ensemble achievement when directors were asked to self-report on these variables.
Previous GPK Research

Previous research suggests that teachers in different musical settings rank these general elements of effective teaching differently (Millican, 2007; Vallo, 1991). Differences in the ways band and orchestra directors use their time in class have been reported in other studies (Stofko, 2002; Witt, 1986); these instructional differences are noticed by the students in band and orchestra programs (McCreary, 2001). If band and orchestra directors rank basic teacher skills differently, it may open the door for further investigation into differences that have yet only been described on an anecdotal basis.

The complexity of teachers’ work serves to frustrate research efforts into the perceived importance of knowledge and skill components in music education. Research utilizing Likert-type responses to various knowledge and skill items shows that all knowledge and skills are highly rated by participants (Colwell, 1985). Because of the indiscriminant nature of these high ratings, most studies have failed to provide a clear understanding of the ranking of these skills; if every skill is rated very important or important, then it is difficult to discern which elements might deserve more attention in music teacher development (Colwell, 1985).

In an effort to reduce the number of items participants are asked to rate, some researchers have resorted to separating knowledge and skill elements into various categories; by evaluating fewer knowledge and skill elements at once, each item may be ranked in relationship to the others within each category (Millican, 2007). In this way, a more informative rating of knowledge and skills might be derived because the complete list of all knowledge and skills is evaluated within discrete categories.

If music teacher educators are to successfully facilitate the development of preservice teachers’ GPK, they must understand how teachers in secondary level music classrooms value these elements. Items that are perceived by professional teachers as most important serve as an entry point for music teacher educators to engage their preservice students in the development of GPK skills. A thorough understanding of the environmental factors that might influence the perceived importance of the various GPK components may help music education faculty better prepare students for the realities of their eventual teaching assignments. If differences exist in the way music educators in various instrumental music disciplines rank GPK components, then these differences cannot be ignored in the undergraduate music education curricula. The purpose of this study is determine how variables related to primary teaching assignment, teaching level, experience, and school size are related to teachers’ rankings interact with instrumental music educators’ rankings of GPK.

Method

This study derives GPK elements from a review of research investigating effective teaching practice in general education and music education settings. Some of these
skills include verbal and nonverbal communication skills (Baker, 1982; C. K. Madsen, Standley, & Cassidy, 1989; Price, 1992; Price & Yarbrough, 1994; Vallo, 1991; Villani, 2002); maintaining a brisk pace with seamless transitions from activity to activity (Brand, 1985; Cotton, 1990; Grant & Drafall, 1991; C. K. Madsen et al., 1989); effective use of eye contact (Grant & Drafall, 1991; Hamann, Baker, McAllister, & Bauer, 2000; C. K. Madsen et al., 1989; Yarbrough & Price, 1981); developing rules, routines, and procedures (Cotton, 1990; Vartanian, 2002); enforcing classroom rules promptly, consistently, and equitably; organizing room and materials; and planning and organizing instruction (Cotton, 1990).

I developed an anonymous online questionnaire to gather data. The first section of the questionnaire asked participants to provide data regarding their primary teaching assignment, primary teaching level, teaching experience, and school size. The second portion of the survey presented 10 items identified in the literature review as essential components of GPK. Participants were asked to rank these 10 items from most important to least important on a scale from 1 to 10. Participants were also given the opportunity to include comments.

The questionnaire was pilot tested with band and orchestra directors (N = 70) and was then presented to participants in the main study. Both sets of participants were drawn from band and orchestra directors listed as active members of the Texas Music Educators Association (TMEA). A stratified random sample was drawn based on the latest available TMEA membership data (see Table 1).

Invitations to participate in the study were sent to 722 school email addresses drawn from the TMEA database. One reminder email was sent to each potential participant. Of the initial invitations, 112 were returned as containing invalid email addresses. An unknown number of invitations were most likely blocked by spam filters utilized by many school districts. A total of 212 people completed surveys, and 173 of the questionnaires contained usable data, for an approximate response rate of 28.4%. A general description of the respondents is presented in Tables 2 through 4. Because the questionnaire asked teachers to provide their subjective rankings of all of the GPK skills, reliability coefficients were not calculated.

**Analysis**

There was a general consensus that four of the items—organize and plan instruction; develop rules, routines, procedures, handbooks, etc.; enforce classroom rules promptly and consistently; and develop relationships with students—were the most important items on the list for each group of teachers regardless of school size, teaching experience, primary teaching assignment, or primary teaching level. Neither school size nor teaching experience was a significant influence in the rankings of GPK items based on Kruskal–Wallis tests.

Despite agreement in the elements that teachers across the board felt were most important, band and orchestra teachers did rank some of the items differently based
on their primary teaching assignment and primary teaching level. A Kruskal–Wallis test showed significant differences in the way band and orchestra directors ranked the GPK item transition smoothly from activity to activity, $H(1) = 4.14, p < .05$. The median ranking of the orchestra directors was significantly lower than the median rankings of the band directors (see Table 5).

Primary teaching level was a significant factor in how directors differed in their rankings of develop rules, routines, procedures, handbooks, etc., $H(1) = 9.95, p < .01$, and enforce classroom rules promptly and consistently, $H(1) = 9.56, p < .01$. Directors in elementary and middle schools ranked these two items higher than did high school teachers (see Table 6).

| Table 1. Texas Music Educators Association Secondary Members by Division, 2006–2007 |
|------------------------|-----------------|-----------------|-----------------|
| Membership Division    | Middle School or Junior High | High School | Total |
| Band                   | 1,676            | 1,809          | 3,485          |
| Orchestral             | 409              | 295            | 704            |
| Total                  | 2,085            | 2,104          | 4,189          |

Note: Data from S. Daugherty (personal communication, January 31, 2007).

| Table 2. Respondents by Primary Teaching Assignment |
|------------------|------------------|
| n                | %                |
| Band             | 80               | 47.3            |
| Orchestra        | 89               | 52.7            |
| Total            | 169              | 100.0           |

| Table 3. Respondents by School Size |
|------------------|------------------|
| n                | %                |
| Small school     | 50               | 29.2            |
| Large school     | 121              | 70.8            |
| Total            | 171              | 100.0           |

| Table 4. Respondents by Teaching Level |
|------------------|------------------|
| n                | %                |
| Elementary or middle school | 77 | 45.0 |
| High school      | 94               | 55.0            |
| Total            | 171              | 100.0           |
There is widespread agreement in the rankings of GPK items across a variety of diverse teaching settings. The fact that each group ranked organize and plan instruction; develop rules, routines, procedures, handbooks, etc.; enforce classroom rules promptly and consistently; and develop relationships with students as most important items helps give clarity to what has often been codified as “classroom management” in the lexicon of researchers into the concerns of teachers.

Discipline issues remain a primary concern for teachers across a wide variety of teaching settings, and this finding is consistent with other research that addresses the concerns of teachers (Conway, 2003; Conway & Zerman, 2004; Haack, 2003). Music teacher educators are right to emphasize the development of classroom management skills in their undergraduate students, but this study goes further to help illuminate just what those skills involve and how education faculty might help develop those skills. The results of this study may help music teacher educators put a finer point on the elements that professional educators consider important in the effective management of their classrooms. The GPK items that practicing teachers identified as most important can serve as entry points to engage preservice teachers in specific areas of development. Specifically, music education students need help in developing planning and organizational skills; these students also need guidance in developing rules, procedures, and other organizational materials. Finally, students need to be guided in their early field experiences, student teaching, and first years on the job as they
continue to develop their ability to establish and enforce rules and to establish healthy relationships with students.

The GPK components of teacher education are receiving more emphasis in many music teacher education programs (Niermen, Zeichner, & Hobbel, 1992). Although every item in the list is important, the subtle differences in teachers’ rankings of these items are important to consider. If band and orchestra directors really differ in their approach as they make transitions between activities in the classroom, then this difference might be investigated more fully by music teacher educators as they prepare band and orchestra students to become effective teachers. Even though collegiate band and orchestra music education students come to preservice programs from different types of ensemble environments, these students are often grouped together in undergraduate music education coursework. If professional band and orchestra teachers really do approach their classrooms differently, then these differences may influence the attitudes and beliefs of undergraduates as they enter music education programs (Dulloff, 1999; Fuller, Brown, & Peck, 1967; Loughran, 2006). Younger music education students must be guided as they move through the stage where they may view materials and procedures from a dualistic “right versus wrong” viewpoint (Brand, 1988, p. 23). As an example, students with band as their primary experience cannot necessarily be expected to understand the subtle ways in which the orchestra experience has affected the overall perceptions of elements of the undergraduate curriculum by orchestral majors (and vice versa).

**Table 6. Rankings by Teaching Level**

<table>
<thead>
<tr>
<th>Element</th>
<th>Elementary or Middle School (n = 77)</th>
<th>High School (n = 94)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>Grouped Median</td>
<td>Grouped Median</td>
</tr>
<tr>
<td>Develop rules, routines, procedures,</td>
<td>1 2.82</td>
<td>4 4.38</td>
</tr>
<tr>
<td>handbooks, etc.**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organize and plan instruction</td>
<td>2 3.20</td>
<td>1 3.00</td>
</tr>
<tr>
<td>Develop relationships with students</td>
<td>3 3.62</td>
<td>2 3.94</td>
</tr>
<tr>
<td>Enforce classroom rules promptly and</td>
<td>4 4.09</td>
<td>5 5.33</td>
</tr>
<tr>
<td>consistently**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal communication skills (use of voice)</td>
<td>5 5.35</td>
<td>3 4.24</td>
</tr>
<tr>
<td>Organize the classroom and materials of</td>
<td>6 6.00</td>
<td>6 5.38</td>
</tr>
<tr>
<td>instruction (music, instruments, chairs,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonverbal communication skills (use of eye</td>
<td>7 6.44</td>
<td>8 6.13</td>
</tr>
<tr>
<td>contact, space, facial expression)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to maintain a brisk pace in class</td>
<td>8 6.90</td>
<td>7 6.08</td>
</tr>
<tr>
<td>Transition smoothly from activity to activity</td>
<td>9 6.93</td>
<td>9 6.91</td>
</tr>
<tr>
<td>Written communication skills</td>
<td>10 9.33</td>
<td>10 8.95</td>
</tr>
<tr>
<td>(grammar, spelling, etc.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the p < .01 level.
The differences between band and orchestra directors’ rankings support similar findings in previous research (Millican, 2007; Stofko, 2002; Witt, 1986). The observation that band and orchestra directors’ priorities are not identical is not surprising and is not without precedent in studies of music instruction. Differences have been shown in the ratings of skills among elementary, instrumental, and choral music education professors (Rohwer & Henry, 2004) as well as in surveys of music education graduates based on their participation in band, choir, and orchestra (Shires, 1990). There are certainly unique sociological factors that are not the direct result of the personality or conscious decision of ensemble directors (C. K. Madsen et al., 1989; Stofko, 2002).

Several practical issues should be considered when interpreting the statistical results of this study. First, although both band and orchestra directors place transition smoothly from activity to activity in the lower half of the total collection of items, orchestra directors rank this item nearer the bottom. One underlying factor that may influence this difference is the generally smaller size of many orchestral classes when compared to band classes. Smaller classes may have less need for strict, regimented transitions sometimes found in larger classes. No information was collected from survey participants regarding the size of their classes. No qualification of “better” or “worse” is implied in the discussion of this finding, but a difference between orchestra teachers’ approach and band teachers’ priorities is noted.

The findings in this study reinforce the notion that middle school instruction in band and orchestra is structurally different from instruction in high school settings. Further investigation, perhaps of a more descriptive nature, is recommended to help define the different approaches of middle school level and high school level music instructors in terms of GPK as it is utilized in these settings. Preservice teachers in instrumental music education need to be guided through early field experiences to become more acquainted with the structural and procedural differences at various levels of instruction in the public schools. Their field observations must be directly tied into the content of their on-campus coursework.

High school and middle school teachers in this study rank the development and enforcement of rules differently. Although middle school teachers rank develop rules, routines, procedures, handbooks, etc. as their number one concern, high school directors rank this item significantly lower. Although the difference in rankings for enforce rules promptly and consistently is not as dramatic as the difference in develop rules, routines, procedures, handbooks, etc., a significant difference still exists between middle school and high school directors’ rankings of this variable. The development of rules and routines has long been documented as an important factor in successful middle school teaching (Gill, 2007; Wormeli, 2001). The development of rules and routines specific to band and orchestra instruction is perhaps even more important to teaching at the middle school level than to teaching at the high school level; the particulars of instrument care, rehearsal discipline, and other structural and procedural elements in band and orchestra are established during these formative years (Haughland, 2007; Hinckley, 1994).
Although these two instances may be considered to have statistical significance, it can be argued that the difference between these rankings lacks practical significance. The rankings between band and orchestra directors were among two items near the middle to bottom of the list, and the differences between teachers in different grade levels still indicated that they each valued the skills near the top of each respective list. This may in fact be considered distinction without practical difference.

Finally, it must be acknowledged that great care must be taken before generalizing the findings of this study to a larger population. The nature of the questions presented to the participants, the structure of the questionnaire, and the quantitative approach to data collection are important factors that may limit the applicability of the findings of this study.

In an attempt to move away from the Likert-type survey question, I chose to present teachers with a list of knowledge and skills and asked them to rank the importance of each item. Many teachers balked at this task, stating that each of these items is equally important. The teachers’ comments of the difficulty of the task reinforce the findings of almost every previous investigation into the importance of teacher knowledge and skills: Every item is at least moderately important (Colwell, 1985). In spite of the initial resistance to the rank-order method of collecting data, there is an underlying structure within and between participant responses that may shed light into the ways in which band and orchestra teachers approach their time in the classroom. The question remains if perceived importance as reflected in a survey of this type reflects actual time and energy spent in the classroom by these same teachers. More research into the relationship between the perceived importance of GPK items and the actions of teachers is recommended.

The design of the study may have influenced the rankings of items. Each item was presented to each participant in an identical order. During the data entry process, I noticed that many respondents seemed to group their rankings by using consecutive numbers for adjacent items. For instance, a participant may have ranked Items 3, 4, and 5 as sixth, seventh, and eighth in importance. It is logical to assume that participants may have isolated their top and bottom items in the list and then quickly grouped many of the remaining items. A replication of this study might randomize the order of the questions or at least utilize several different versions of the same survey with items presented in varying orders.

Another design flaw was the potential for ambiguity in the interpretation of each ranked item. For example, one person might interpret transition smoothly from activity to activity as the time spent within each class lesson; others may have interpreted this item to mean student movement between classes. More detailed instructions or prompts may alleviate the ambiguity of these statements. A complete paragraph that operationalizes each statement might help respondents approach the survey with a uniform definition of the items to be ranked.

Further research into the differences outlined in this study is recommended. A replication of this study with the modifications outlined above might reinforce or refute the current findings. The differences between band and orchestra teachers’
rankings of priorities in the middle and high school years might be better investigated by utilizing a qualitative approach. A qualitative study may provide a more uniform operational definition of each of the items explored in this study and would certainly allow the participants to more eloquently express how they choose to utilize the skills of GPK in their classrooms.

The widespread agreement in the top GPK items among a wide variety of teachers should help music teacher educators prioritize experiences and instruction in the classroom and early field experience. More research is needed to help clarify some of the possible interactions of these variables and to help flesh out the true nature of teaching at various levels of different subjects in instrumental music education.

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References


EFFICIENT Rehearsal Strategies: So Much to Rehearse in So Little Time!

Dr. Robert Gillespie
The Ohio State University

The following are selected strategies for rehearsing strings in an orchestra. Consider them when planning how best to rehearse music with your orchestra.

Guiding Principle: *Orchestras perform only as well as they have rehearsed*

General Guidelines
1. Rehearse as you would practice a solo on your principal instrument, e.g., isolating sections, brackets, starting with most difficult sections
2. Record rehearsal - audio, video, protects teacher’s ears from accepting poor student performance
3. Some instructions can be given while students are playing – saves time but be careful of overuse
4. Have students memorize difficult passages
5. Modeling - teacher or student models passage on string instrument, sings the passage, plays the passage on the piano, or plays the passage back to the students *inaccurately* as they are playing
6. Determine best priority order for your rehearsal: notes, intonation, tone, rhythm, style, expressiveness. Priorities change from first rehearsal to concert.

Sound Production
1. Analyze bow placement (before passage begins, during passage, and at the end of the passage), clothespins: *teach students to be able to play in all parts of the bow and help them remember what part of the bow the passage should be played*
2. Analyze bow speed of students - prevents students from getting trapped in the wrong part of the bow. Use “miles per hour” analogy to describe proper bow speed
3. Listen to orchestra from behind or from the back of the auditorium
4. Move orchestra to stage edge to increase overall sound
5. Turn basses out to audience (almost parallel to stage edge) for best balance
6. Use faster bow speeds to create resonant, free string sound throughout. Lower string instruments use slower bow speeds than upper strings
7. Alter bowings to fit group and for best sound
8. Lanes – divide space between bridge and fingerboard for the best place for the desired sound
9. Place tape, sticker, or chalk on students’ bows to show them where in the bow a passage should be played.
10. Basses should move bow slower and using real bass rosin, not violin rosin.
11. Orchestra should be able to produce different tone colors by changing relationships between bow speed, weight, and sounding (contact) point.
12. To develop bow speed awareness and competency have students play one long pitch and count 8 beats. Then, gradually change the speed of the bow by increasing or decreasing the number of beats. The students should count aloud and the tempo of the beats should remain the same.

**Technique**
1. Break passage down to prerequisite technique - dissect & restack skills, e.g. break down to open strings, vibrato motions, spiccato motions.
2. Pizzicato difficult left hand passage.
3. Practice spiccato passages on string for left hand security.
4. Shifting - find **intermediate** (transport) note, practice shift to intermediate note, practice plunking down note in higher position from intermediate note, shift sounding intermediate note, then practice shift without sounding intermediate note.
5. Cello Extensions - between 1\textsuperscript{st} and 2\textsuperscript{nd} fingers. Can be referred to as “Second finger extensions.” Practice sequence: Practice motion on right arm, pizzicato, then arco, look behind the cellos to watch thumbs, practice “face extensions.”

**Tempo**
1. Variation - slow to fast to coordinate bowing and left hand technique.
2. Rushing – Rehearsal strategies to prevent:
   1. place false bow speed accents on principal beats.
   2. tap foot.
   3. move body to pulse with the stroke.
   4. use faster bows to slow down.
   5. follow teaching sequence-bow pizzicato passage legato, then staccato, then pizzicato.
   6. have the outside stand player plays subdivisions while insider player plays printed passage.
   7. play a metronome sounding the subdivisions as students play.
   8. do not conduct which helps students realize they are rushing and listen more carefully.
   9. have part of the orchestra bow a pizzicato passage legato while the rest pizzicato as printed.
10. have one instrument section acts as metronome playing open strings only on principal beats.
11. use McAdam’s metronome or amplified metronome.
**Rhythm**

1. Teach, evaluate, and reinforce with pizzicato - reward by playing with the bow:
   - Use the following teaching sequence: pizzicato, bow without slurs, then as printed
2. One section counts beats out loud while another pizzicatos its rhythm
3. Have one section bow its rhythmic passage while the rest of the orchestra pizzicatos their parts. This is especially good for lining up parts.
4. Have students toe tap while playing to keep a steady beat

**Pizzicato**
1. Pizzicato over fingerboard
2. Pizzicato on side of finger
3. Move right hand farther down the fingerboard for lighter pizzicato
4. Instruct students to vibrate pizzicato to help prevent rushing pizzicato
5. Pizzicato instruct students to strum diagonally across the away from the bridge using a flat pizz finger for more resonant

**Dynamics**
1. Softer- one student plays at soft dynamic, other students join but cannot play any louder than first student
2. Softer – instruct students to use less bow or a slower bow
3. Louder – instruct students to use a heavy bow, faster bow, weighty bow
4. Deliberately allow students to play soft passage loudly for fun and then at proper dynamic level

**Balance**
1. Only one student plays melody - other instrument sections must accompany the solo student at the appropriate dynamic level
2. Be sure to teach students which musical line must be heard
3. General principles: inner parts need to play louder, lower strings need to play louder, repeated notes are not as important, sustained notes are not as important as moving notes, moving part is generally more important

**Intonation**
1. Sustain and tune problem pitches
2. Add one in-tune player at a time
3. Tune chord progressions, sustaining one chord tone at a time: root, third, fifth
4. Tune between sections of the orchestra
5. Play problem intonation pitches very softly and tune
6. Sustain pitch on down beat of each measure or only on principal beats
7. Take out vibrato to tune pitches
8. Bow pizzicato pitches to hear and correct intonation problems
9. Have students demonstrate the finger pattern on each string in the key of the piece being rehearsed
10. Rehearse problem passages slowly to give yourself and the students a chance to hear and adjust pitches
11. Be careful to especially check the intonation of notes at the end of phrases
12. When tuning to double basses or cellos be sure players’ bows are moving slowly to help focus the tuning pitch
13. Remember students always need a model pitch to tune to
14. Identify particularly problem pitches and periodically during rehearsal stop and tune those pitches for repeated listening and pitch memorization
15. Realize that string students and orchestras can play in tune - do not lower your intonation standard. Students will play in tune as they are demanded.

**Musicality**
1. Phrasing - shape through bow speed, weight, lanes
2. Show through singing and modeling
3. Mark phrase shapes in music using curved, dotted lines
Fixing Your Orchestra: Getting Your Orchestra Ready
For ONLY Great Performances

Dr. Robert Gillespie
The Ohio State University

I. General Principles
   A. Warm-ups are necessary!
   B. Help review technical skills
   C. Help develop new technical skills
   D. Help prepare for rehearsal of related music
   E. Help focus attention of students
   F. Best if warm-up involves a review of skills, refinement of previously’
      learned skills, and/or introduction of new skills
   G. Warm-up can be rote or by note or combination
   H. Warm-up can be organized by overall skill development of students or
      by technical skills needed to learn specific repertoire
   I. Teacher must spend time planning the warm-up
   J. Length of warm-up dependent upon length of rehearsal and timeline for concert
      preparation, e.g. approximately one-third of class time as general guideline
   K. Rehearsal sequence: warm-up to passage work to play through to concert

II. Warm-up Organized by Overall Sequential Skill Development of Students
   A. Warm-up can involve teaching strategies for developing sequentially the
      overall playing skills of string students throughout the curriculum:
      BOWING SKILLS
      1. bow hand shape
      2. detache stroke
      3. direction changes
      4. string crossings
      5. slurring
      6. stopped strokes: staccato and Martele
      7. spiccato
      8. sautille
      LEFT HAND SKILLS
      1. body posture
      2. instrument position
      3. left hand shape
      4. chromatic alterations: upper string finger patterns, cello extensions, bass shifting
      5. shifting
      6. vibrato
      AURAL SKILLS
      1. raise/lower a pitch by ear
      2. match selected pitches by ear
      3. march pitch patterns leading to scales by ear
      4. match simple double stops by ear
      5. play melodies by ear in multiple keys
      6. develop ensemble triads
select triads by ear to accompany scales
8. select triads by ear to accompany melodies
9. develop improvisatory skills

• III. Printed Technical Development Materials – Music and Teacher Texts
  
  Music
  • All for Strings, Vol. 3, Kjos:
  • Essential Technique for Strings and Advanced Technique For Strings, Hal Leonard
  • Essentials for Strings, Kjos
  • The First Ten Minutes (Merle Isaac) Wynn
  • High Tech for Strings, Carl Fisher
  • Intermediate String Techniques (Forest Etling), Highland/Etling
  • Muller Rusch String Method Vols. 3,4,5, Kjos
  • A Rhythm A Week, Warner Bros
  • Strictly Strings Vol. 3 and Strictly Strings Orchestra Companion, Alfred Publications
  • String and Full-Orchestra Warm-Ups, Hal Leonard
  • Viva Vibrato!, Kjos

  Texts
  • The Art and Science of String Performance by Sam Applebaum, Alfred Pub.
  • The Teaching of Action in String Playing, Paul Rolland, ASTA
  • Playing the String Game: Strategies for Teaching Cello and Strings, Phyllis Young, Amazon
  • The String Play: The Drama of Playing and Teaching Strings, Phyllis Young, Amazon
  • ASTA String Curriculum: 2011 Edition

  Media
  • String Clinics to Go: The Art of Recruiting
  • String Clinics to Go: Getting Started
  • String Clinics to Go: Teaching Intermediate Strings
  • www.Essentialelementsinteractive.com

• III. Warm-up Organized by Technique Related to Specific Repertoire
  
  A. Involves analyzing skills need to play specific repertoire and then
     Selecting rote teaching strategies or printed technical materials designed to develop those skills
  
  B. Point out to students how the technical skills in the warm up relate specifically to their repertoire

• IV. Sample School Orchestra Performances with Related Warm-up and Rehearsal Plans