

# Music Educators Journal

<http://mej.sagepub.com>

---

## Constructivist Practices to Increase Student Engagement in the Orchestra Classroom

Bernadette Scruggs

*Music Educators Journal* 2009; 95; 53

DOI: 10.1177/0027432109335468

The online version of this article can be found at:

<http://mej.sagepub.com>

---

Published by:



<http://www.sagepublications.com>

On behalf of:



[MENC: The National Association for Music Education](http://www.menc.org)

**Additional services and information for *Music Educators Journal* can be found at:**

**Email Alerts:** <http://mej.sagepub.com/cgi/alerts>

**Subscriptions:** <http://mej.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>

by Bernadette Scruggs

# 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



**Three focused violinists.** (Photo by Shaun Scruggs)

Bernadette Scruggs is a recent graduate of the Ph.D. program in music education at Georgia State University. She teaches orchestra at Peachtree Ridge High School in Gwinnett County, Georgia, and can be reached at [bernadette\\_scruggs@gwinnett.k12.ga.us](mailto:bernadette_scruggs@gwinnett.k12.ga.us).

*You can engage your students in rehearsal by increasing their participation at every level—from repertoire selection to guest-conducting your ensembles.*

Copyright © 2009 MENC: The National Association for Music Education  
DOI: 10.1177/0027432109335468  
<http://mej.sagepub.com>

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.<sup>1</sup> 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.<sup>2</sup>

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.<sup>3</sup> Constructivism focuses on the understanding process of the individual with the assumption that each learner brings his or her own knowledge to the classroom.<sup>4</sup> 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 relation-

ship 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*.<sup>5</sup> Bruner and his colleagues describe the task of a teacher in this process as one of *scaffolding*.<sup>6</sup> 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.<sup>7</sup> 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.<sup>8</sup> 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 called "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



Concert photo with cello soloist. (Photo by Edward Scruggs)

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.<sup>9</sup> 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,<sup>10</sup> and *Strategies for Teaching Strings*<sup>11</sup> 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?<sup>12</sup> 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.<sup>13</sup> 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 to plan for the next 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.<sup>14</sup>

## 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 wander? 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 vio-

lins 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 sway 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 director 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.

## A Constructivist Approach with Choruses

by Patrick K. Freer, Georgia State University

Many of the ideas found in the accompanying article can be adapted to the choral rehearsal environment. Some of the constructivist-oriented approaches can be replicated in any setting—orchestral, choral, or band—while others require a bit of modification for choral situations. Here are some learner-centered rehearsal strategies that I have used with a variety of ages, from elementary through high school.

### 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!

Singing circles: Have students arranged in single-file circles (small or large, homogeneous or heterogeneous). Each voice part may form an individual circle, or you might have multiple concentric circles. Singing into the center of the circle helps students hear others within the circle, while standing with backs toward the center of the circle—perhaps facing the wall—encourages students to listen carefully to others in the ensemble, since they will lack the visual cues they may have previously relied upon.

### Physical Response to Music

Dynamic feet: Have students stamp (lightly!) their feet to the rhythm of their vocal line while remaining vocally silent. The stamping should reflect the dynamics of the printed vocal line, including crescendos, decrescendos, and so on. This works especially well with polyphonic music. The accompaniment might be played if applicable.

### Encouraging Musical Independence

Musical prediction: Before handing out a new piece of music, read the text aloud. Have students predict how the composer would have set each musical element (melody, harmony, rhythm, timbre, texture, form, dynamics) based on the text only. Compare the predictions with the printed score.

Become the composer: Distribute a new piece of music. From the printed score alone (no sound), ask students how the composer set each musical element and how they arrived at their answers. This facilitates the navigating of choral scores. Use a system for identifying locations within the music, such as by page-system-measure (“2-3-5” equals page 2, system 3, measure 5).

Jump start: When students are in groups, each group can ask for a specified number of “jump starts.” These will be moments of teacher assistance (scaffolding) that you will provide in response to specific needs identified by the students.

Detail detector: Let students examine the score of a new piece for any markings or notation that they do not understand. This will give an indication of what concepts and skills need to be taught before the piece itself.

If using a student conductor seems like an impossible scenario, professional colleagues could be brought in to direct the group. Much can be learned by both students and teacher with the addition of other music educators. Students will value the remarks made by a new leader, even if they have heard them a thousand times before from their director, and the teacher will benefit from another educator’s perspective.

### 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

director and principal players have already decided upon and marked passages from the music to be covered during this time. For individual students, research has indicated that peer tutoring has been shown to be an effective method to motivate and inspire struggling students.<sup>15</sup> Not only does peer tutoring offer a bonus for the tutee, but it also gives adept players more to do than to sit, bored, through repeated rehearsals that are mainly designed for those who cannot play the music.

Accomplished student performers can also assist the director by creating the concert program. Using skills taught for music selection, students can help determine the order of pieces based on musical contrast and styles. While directors are often hassled by the necessary preparations for a concert, students can offer a fresh perspective for program design. What might be considered a chore by a director could be a chance for several students to show creativity and feel ownership. Additionally, researching the music's history for program notes is an excellent enrichment project for the proficient player.

## 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 excep-

## 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 notate 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.

tional 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 life-long 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

selection also requires the players to be in agreement on the same piece, a fairly impossible task for some ensembles. Limiting the number of choices to five or six selections of an acceptable level can hasten this process. Students should be given a rehearsal time frame so they can structure their rehearsals in preparation for performance. Having students hear and critique each other's ensemble performances is also well worth the time. This is an essential part of the ensemble learning process because students, like teachers, learn from observing the performances of their peers.

Teachers should act as coaches during the sectional and the small-ensemble rehearsals. Integrating constructivist practices into the classroom does not mean that teachers become peripheral to the string orchestra. In fact, the students will be quite dependent on their directors for scaffolding at the beginning of this experience. It will be up to the teacher to know when to begin the process of fading, which should urge the students to grow more independent.

## 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

1. Joseph Shively, "In the Face of Tradition: Questioning the Roles of Conductors and Ensemble Members in School Bands, Choirs and Orchestras," in *Questioning the Music Education Paradigm*, ed. Lee R. Bartel (Waterloo, ON: Canadian Music Educators' Association, 2004), 179–90.
2. Ibid.
3. Virginia Richardson, *Constructivist Teacher Education: Building a World of New Understandings* (London: Falmer, 1997).
4. Ibid.
5. Lev S. Vygotsky, *Mind and Society: The Development of Higher Mental Processes* (Cambridge, MA: Harvard University Press, 1978).
6. Jackie H. Wiggins, *Teaching for Musical Understanding* (New York: McGraw-Hill, 2001).
7. Jackie H. Wiggins and Peter R. Webster, "Fostering Revision and Extension in Student Composing," *Music Educators Journal* 91, no. 3 (2005): 35–42.
8. Wiggins, *Teaching for Musical Understanding*.
9. Lynn G. Cooper, *Teaching Band and Orchestra: Methods and Materials* (Chicago: GIA, 2004).
10. David Littrell and Laura R. Racine, eds., *Teaching Music through Performance in Orchestra* (Chicago: GIA, 2001); and David Littrell, ed., *Teaching Music through Performance in Orchestra*, vol. 2 (Chicago: GIA, 2003).
11. Donald L. Hamann and Robert Gillespie, *Strategies for Teaching Strings* (New York: Oxford University Press, 2004).
12. Cooper, *Teaching Band and Orchestra*.
13. Jacqueline G. Brooks and Martin G. Brooks, *In Search of Understanding: The Case for Constructivist Classrooms* (Alexandria, VA: Association for Supervision and Curriculum Development, 1999).
14. Ibid.
15. Glenn M. Roswal and Aquilla A. Mims, "Effects of Collaborative Peer Tutoring on Urban Seventh Graders," *Journal of Educational Research* 88 (1995): 275–80.

## Resources for Increasing Rehearsal Engagement

- Brooks, Jacqueline G., and Martin G. Brooks. *In Search of Understanding: The Case for Constructivist Classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development, 1993/1999.
- Cooper, Lynn G. *Teaching Band and Orchestra: Methods and Materials*. Chicago: GIA, 2004.
- Hamann, Donald L., and Robert Gillespie. *Strategies for Teaching Strings*. New York: Oxford University Press, 2004.
- Littrell, David, ed. *Teaching Music Through Performance in Orchestra*, vol. 2. Chicago: GIA, 2003.
- Littrell, David, and Laura R. Racine, eds. *Teaching Music Through Performance in Orchestra*. Chicago: GIA, 2001.
- Richardson, Virginia. *Constructivist Teacher Education: Building a World of New Understandings*. London: Falmer, 1997.
- Roswal, Glenn M., and Aquilla A. Mims. "Effects of Collaborative Peer Tutoring on Urban Seventh Graders." *Journal of Educational Research* 88, no. 5 (1995): 275–80.
- Shively, Joseph. "In the Face of Tradition: Questioning the Roles of Conductors and Ensemble Members in School Bands, Choirs and Orchestras." In *Questioning the Music Education Paradigm*, ed. Lee R. Bartel, 179–90. Waterloo, ON: Canadian Music Educators' Association, 2004.
- Wiggins, Jackie H. *Teaching for Musical Understanding*. New York: McGraw-Hill, 2001.
- Wiggins, Jackie H., and Peter R. Webster. "Fostering 'Revision and Extension in Student Composing.'" *Music Educators Journal* 91, no. 3 (2005): 35–42.
- Vygotsky, Lev S. *Mind and Society: The Development of Higher Mental Processes*. Eds. M. Cole, V. John-Steiner, S. Scribner, and E. Souberman. Cambridge, MA: Harvard University Press, 1978.