

by Brian N. Weidner

Achieving Greater Musical Independence in Ensembles through Cognitive Apprenticeship

Students can develop critical thinking skills and can become effective part-time leaders of their ensembles.

Abstract: Musical independence is a common objective for large-ensemble classes, but traditional, teacher-centric instructional practices for these groups may discourage rather than promote students' critical thinking and decision making in music. Cognitive apprenticeship provides an instructional approach through which student musicians can develop skills for musical independence, including critical thinking and problem solving, while at the same time maintaining high-quality large ensembles. This process involves three stages of instruction: modeling, coaching, and fading. This article presents examples from several band directors who use a cognitive apprenticeship approach that can be applied to all types of large ensembles to help students develop the skills and competencies needed to engage with music meaningfully on their own, both within and outside the music classroom.

Keywords: cognitive apprenticeship, critical thinking, ensemble, musical independence problem solving

As a young music teacher, I envisioned the ideal band director as an omniscient though benevolent dictator. He bestowed his seemingly infinite and unquestionable knowledge on a silent ensemble of players and served as the sole arbiter of good and bad performances. Today, I still find that when listening to the banter of directors of all genders at conferences and festivals, there is deference and envy paid by some to this stereotyped image of the director as compassionate tyrant. Like many young teachers, early in my career, I tried to play this role and quickly discovered that

I was redundantly correcting and redirecting my students' music-making, amazed that they could not make simple changes themselves. Could they not hear what was wrong?

As I reflected on my teaching, I realized that I had told them that they could not. I had taught them implicitly that they were not the music-makers but rather the music-followers, because I attempted to provide all the observations, feedback, and corrections in rehearsal. Certainly, they had responsibilities for musical decision making on issues that I chose not to address, but they had learned that their principal duty was to play

Brian Weidner is a doctoral candidate in music education at Northwestern University in Evanston, Illinois. He can be contacted at BNWeidner@u.northwestern.edu.

instruments, not to think critically about their music-making. After coming to the revelation about how I taught *musical dependence*, I made it my objective to support the development of my students' *musical independence*. The poster over my desk that humorously read, "Rule 1: The band director is always right. Rule 2: If the band director is wrong, see Rule 1," went into the recycling bin, and I started to re-create my classroom as a place in which students both could and were expected to make the decisions that mattered in both their collective and individual music-making.

Independent Learning

While several articles have emphasized the role that large ensembles can play to facilitate students' critical thinking, meaning making, and responsibility,¹ the large ensemble has been frequently challenged by music educators such as John Kratus and David Williams as being incompatible with developing student musical independence. Their arguments are dominated by the image of the traditional large-ensemble rehearsal, in which the control of all significant decision making and critical thinking is in the hands of the ensemble director.² I would counter this position by stating that the perceived authoritarian role of the director lies in the choice of instructional approach to the large ensemble, not in the essence of the large ensemble itself. While this podium-centric approach may be exaggerated, the archetypal image of the *director as conductor* as described by Teachers College professor Randall Allsup³ is of an individual who manages all aspects of the ensemble and serves as the group's master musician and primary decision maker. This stereotyped director's role is to "inspire and challenge musicians to perform at their highest possible level through instructive assistance,"⁴ often resulting in a classroom dominated by the teacher's (as opposed to the students') decision making and critical thinking for the sake of expediency and efficiency.

In other academic subjects besides music, the underlying goal is that students

independently and critically engage with the course's materials and content, both on their own and in groups with others. Successful math students should be able to build a quadratic formula without assistance, and literature students should be able to analyze *Huckleberry Finn* on their own. This independence is a result of repeated, intentional instruction that incorporates differentiated and scaffolded teaching practices that are sensitive to the difficulty and context of the task, the students' familiarity with the content, and these students' unique abilities and weaknesses.⁵

By contrast, Cathy Benedict stated that, as ensemble directors, "we do not ask our students to think, let alone be vigilant,"⁶ which is supported by research that suggests that while our students are actively engaged in music-making in our classrooms, they often-times lack the critical skills for effective independent practice.⁷ What I and others such as Allsup and Benedict, as well as researchers Peter Miksza, Steven Morrison, and Steven M. Demorest,⁸ suggest is reframing the music director role as the *director as educator*, who focuses on providing students with frequent and meaningful opportunities to engage in music with scaffolded levels of support and autonomy. For the *director as educator*, a primary objective of large-ensemble instruction is the development of musical independence. Musical independence is demonstrated when students can "make meaningful decisions that matter"⁹ and then justify their decisions using their understanding of musical concepts, their observations of their own performance, and their awareness of the musical activities of those around them.

These two approaches to the role of music director exist on a continuum, and the same director quite possibly acts in both roles at different times. While the *director as conductor* may permit and even expect her musicians to critically think and make decisions as part of their music-making, the *director as educator* explicitly emphasizes these responsibilities and provides numerous, scaffolded opportunities for student

musicians to develop these independent skills. I am not suggesting that the *director as conductor* does not desire or even welcome her musicians' independent musicianship. Rather, I have observed that traditional approaches to rehearsal can implicitly diminish the expectation for independent musicianship and do not provide intentionally scaffolded support for its development. By contrast, the *director as educator* intentionally teaches for and expects independent musical engagement from all students.

Critical thinking and decision making are the foundation on which musical independence and musical awareness are based. Teaching this foundation of inquiry encourages students to approach their music not just as technicians but also in a more comprehensive manner, considering their own responsibilities in the core artistic processes of creating, performing, analyzing, and connecting that are central to the National Core Arts Standards (NCAS).¹⁰ By encouraging critical thinking and multimodal engagement with music, the *director as educator* pushes students to consider the many roles that they can play as musicians. Pedagogical approaches in other curricular areas that support the development of student autonomy can be adopted by music educators to promote this sort of critical thinking and independence in large-ensemble instruction.

Cognitive Apprenticeship in the Ensemble Classroom

One way that teachers in subject areas outside of music develop student independence is described by learning scientist Allan Collins and his colleagues as "cognitive apprenticeship."¹¹ In this model of teaching and learning, a master-apprentice relationship between teacher and student is assumed that gradually yet quickly replaces the educator with the student as the primary actor in the learning process. As opposed to traditional large-ensemble methods that emphasize technical and expressive modeling, cognitive apprenticeship teaches problem-solving and decision-making skills by

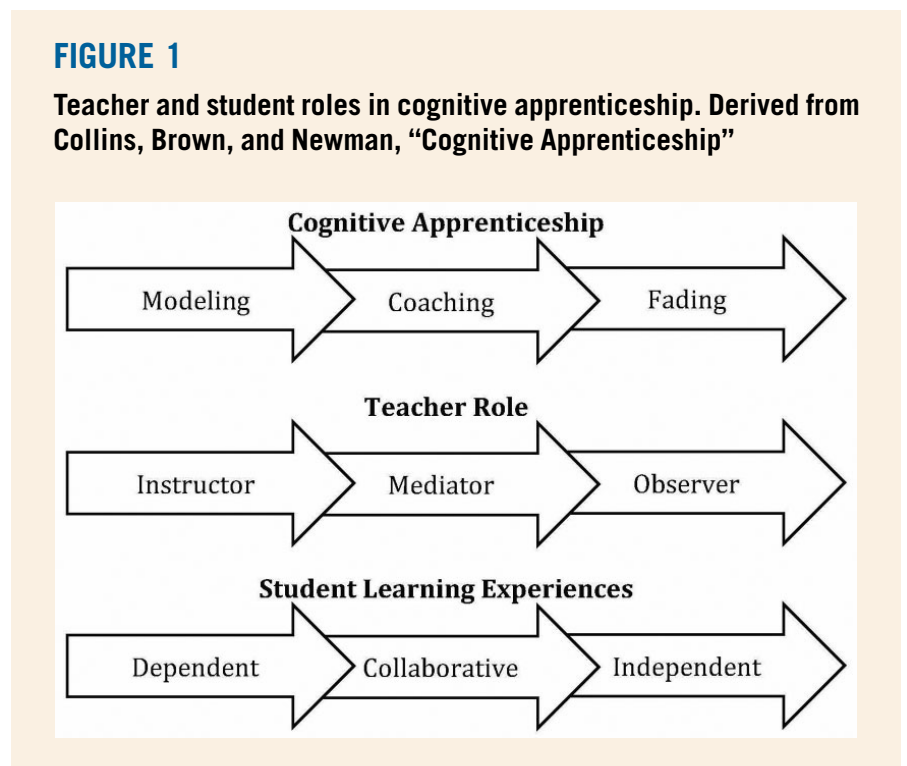
making thought processes visible and transparent.¹²

The cognitive apprenticeship process comprises three phases: modeling, coaching, and fading. Each involves increased expectations for student responsibility. During the modeling phase, the teacher explicitly demonstrates how she thinks about and works with cognitive challenges. During the coaching phase, she closely monitors the students' thought processes as they work on authentic tasks through scaffolded instruction. In the fading phase, she removes herself to become an observer, and her students engage with tasks independently.

When learning through cognitive apprenticeship, the students engage in the same authentic learning tasks as those in traditionally taught ensembles. They are rehearsing pieces, listening to music, and discussing musical concepts. The contrast to the traditional rehearsal model is that the *director as educator* intentionally and explicitly teaches and develops the students' cognitive skills for music learning through modeling, coaching, and fading. She expects that the students will develop mastery of these cognitive strategies and apply them to their music-making, eventually without her support, while in her classroom.

Applying Cognitive Apprenticeship to the Band Classroom

In what follows, I describe in more detail the cognitive apprenticeship model and provide examples from the real classrooms of Kurt Carter, Michael Evans, Pete Guss, and Emma Simek.¹³ While all four are band directors who I have personally observed in my research, the methods that they used are not exclusive to any particular instrumentation and could readily be applied to other performance settings, including choir, orchestra, and general music ensembles. Each of these teachers described themselves as having taught with a podium-centric pedagogy early in their careers (e.g., described by Guss as "the last great dictatorship"¹⁴), which was changed to a



more student-focused, problem-solving approach with the development of musical independence as a primary teaching objective. They used the cognitive apprenticeship process to raise student awareness of their own critical thinking and engage students in decision making that affected the music-making of their ensembles.

Modeling

Modeling is already commonly found in traditional ensemble instruction, in which it typically focuses on accurate technical execution and musical interpretation.¹⁵ When using cognitive apprenticeship, teacher modeling additionally focuses on demonstrating the cognitive processes and strategies for thinking critically about music. Modeling is not only about accurate performance but also about understanding the thought processes that created that performance.

During warm-ups, Michael Evans has the band crescendo on the descending line of the day's scale, explaining, "We crescendo down so that we play without breaking

our legato tone and finish that last note with a warm and full and round sound."

Later, while the band plays a slow pavane melody, he narrates his thoughts. "As we descend that line, we are losing our tone and focus. Maybe we need to crescendo through the theme, just like in warm-ups. Maybe that's why we did that warm-up?" he says with a smile as the ensemble laughs before playing again, this time with a crescendo and a warm, focused tone.

In the previous example, Evans modeled the critical listening and thinking that are required to effectively and expressively phrase a slow melodic line. Evans both modeled an effective performance technique and demonstrated his critical-thinking and decision-making processes. The next time a similar issue arose, rather than automatically applying the same strategy himself, Evans reminded the students to apply his previous model by asking them to relate what they were doing to previous experiences and explain the application of the model that Evans provided to solve those problems.

Music ensembles typically include students with a wide range of musical

and cognitive abilities. It is likely that students are at different stages of independent musicianship. In this situation, more independent students can be used to provide the models for less advanced students.

Evans asks one of the saxophone students, Brody, to explain how he is keeping a triplet rhythm in time, because the rest of his section is having difficulty. Brody explains that before he started playing, he repeated, "Choc-o-late pie, choc-o-late pie," to himself, to establish "the evenness of the triplet and the emphasis on pulse, just like you taught us last year." Evans then has the rest of the class recite "choc-o-late pie" before playing the rhythm together.

Modeling in these classrooms was not only about demonstrating proper musical execution but also about making the thought processes visible so that students understood the critical thinking that underlies musical decision making. Early in the modeling process, teachers provided explicit models that demonstrated their thinking processes. Later, modeling became less teacher-driven and placed more responsibility on the students to think critically for themselves and to make decisions with strong teacher prompting, leading them into the coaching phase of cognitive apprenticeship. Whereas modeling in traditional ensemble pedagogy emphasizes providing technical and musical examples, modeling in cognitive apprenticeship focuses on teaching students how to think about, critique, and advance their own performances.

Coaching

The coaching phase is best characterized as strong constructivist teaching and switches the role of the music director from instructor to mediator. Whereas modeling in cognitive apprenticeship likely requires only slight changes to the sorts of modeling that already occur in director-dominated ensembles, the coaching phase interrupts the typical balance of instruction and control. The students are now the ones engaged

in critical thinking and decision making, oftentimes using approaches that the teacher previously modeled. While coaching, the teacher closely monitors student engagement, encourages depth in learning, remediates if necessary, and gets derailed processes back on track. The teacher has two powerful tools to use in the coaching phase: questioning strategies and student discussion.

In the first week of classes at Stanford High School, Kurt Carter asks his students, "Why would I have you hold out the top note of the Remington warm-up?"

Freshman flutist Liz responds, "You want us to listen for balance and intonation, and it isn't locking together, so you are holding it to make sure we get it."

Exchanges like this one between Carter and Liz and the one discussed previously between Evans and Brody exist on the line between modeling and coaching. Questions are direct and address not only the visible actions that students take but also the invisible cognitive processes that dictate those actions. This direct questioning allows for an assessment of student understanding of modeled concepts that quickly moves on to more sophisticated levels of application, analysis, synthesis, and creation.

Bloom's Taxonomy¹⁶ provides a useful way to think about the structuring of questions that require more intense critical thinking and student analysis.¹⁷ As students become more independent in their musical abilities, they become more aware not only of their factual understanding of musical concepts but also of higher-order cognitive skills that require greater mastery and independence. While coaching is certainly used by the *director as conductor*, her focus is typically on getting students to perform music accurately. Coaching in cognitive apprenticeship goes further to ensure that students understand how they get to accurate performances on their own and why those strategies effectively work.

As seen in the following excerpt from Emma Simek's rehearsal, open-ended

questioning can promote student awareness and critical thinking that develop into student-led discussion.

Simek stops the band after a run-through of a short section of music with numerous rhythmic, pitch, and balance issues. "Why did we just stop?"

Junior clarinetist Kris responds, "Our rhythmic accuracy was off."

Simek shouts, "Silent signal! How did you do on rhythmic accuracy?" Every student holds up a hand, mostly with two or three fingers up. "So, what do we need to do to get it to a 5 from everyone?" Students call out suggestions, including, "Slow it down," "Practice with a metronome," and "Play as an ensemble." Through discussion, the students decide together to try playing slowly, breaking down into melody and accompaniment parts. Simek uses the students' observations and recommendations to shape the remainder of the rehearsal, providing multiple opportunities for students to critically assess their progress.

Simek's questions were broad with many possible answers and required student critical thinking. Students were expected to assess their own progress and prescribe methods for improvement. When students responded, Simek used their responses to guide rehearsal rather than making the decisions herself. Her questioning promoted student-led discussion with limited teacher interference.

While there are many ways to create this environment, there are several strategies already in use in other curricular areas that can help foster student-led learning.¹⁸ In my rehearsals, I regularly use a coaching strategy called Think-Pair-Share (TPS).¹⁹ I provide students with a prompt such as "How can we make the first theme more expressive?" The students write down their thoughts and then pair with other students to share and together create a response that they can report to the class. Through discussion, the ensemble makes decisions for how rehearsal will continue. TPS provides a snapshot of the students' critical thinking about music as well as the problem solving they use in response to it.

The mini-clinic is another coaching strategy that encourages conscious and critical engagement with music, which I adapted from the literacy approaches of jigsawing and reciprocal teaching.²⁰ During mini-clinics, I organize students into small groups and give each group the responsibility to come to class prepared to rehearse the ensemble through a specific section of music. While I am present to assist the student clinicians if they request it, the students assume responsibility for all aspects of rehearsal, including the diagnosis and correction of errors and the communication of objectives and strategies that will be used by the rest of the ensemble. Through coaching activities like open-ended questioning, TPS, and mini-clinics, the students become the primary music-makers, with the *director as educator* serving as a mediator to guide their decisions and discussions.

Fading

After the modeling and coaching phases that involve active participation by the teacher, the fading phase removes the teacher from the music experience to allow for independent student engagement. It is critical that these independent music-making activities are an integral and regular part of the curriculum, not just an add-on unit once a year, so that students have multiple, sustained opportunities to practice and assert full independent musical engagement. In the fading stage, the *director as educator* assumes the role of interested observer and student resource.

Each of these classrooms dealt with student-led music-making in different ways. Guss and Evans built chamber ensembles into the band curriculum in which students were responsible for every aspect of music-making from music selection to final performance. Simek and Carter had students planning, organizing, and running weekly sectionals. Simek and I included pieces on concerts in which the students composed and rehearsed the music in large groups or small ensembles without our immediate intervention.

While Michael Evans observes the brass quintet without saying a word, trumpeter Kevin is already behind the rest of the group. He catches up three measures later, but then Dakota loses his place on the tuba part. With a sigh, Dakota stops, and the music decays to a halt.

Brendan mumbles over his trumpet mouthpiece, "I think that part is not good. At 19."

Jessica mumbles while fingering parts on her horn. "It was partially my fault, because I went to play the note, and it didn't come out . . . but I fixed it! I marked it, so I now have a breath mark there. I think we're improving on staying together. Do you want to start back at 9?"

As compared to teacher-directed ensembles, student-directed groups progressed more slowly with multiple, unaddressed mistakes as students discovered what worked for them and what did not.²¹ It is important that students be allowed space to struggle and make mistakes during their independent music-making, because this process tests their critical-thinking and problem-solving skills. As a teacher looking in, it can be difficult to not immediately intervene, but it is critical for the students to have the chance to practice in a safe environment prepared by teacher modeling and coaching. While observing during the fading phase, the teacher is taking note of issues that the students are having that may need to be addressed through further modeling and coaching, either with the whole group or with individuals requiring additional support. As Katy, a senior alto saxophonist, stated, "Everything that we do, subconsciously, is taken from the classroom. If we had not gotten the education we had from our teacher, if you had just thrown us into a room without this class, [our saxophone quartet] would go far, far more poorly than it did."

As an outsider observing these teachers' students, I quickly became aware that while time was being taken from the large ensemble to facilitate the student-led activities, the large ensembles benefited because the students were more consciously and critically aware of the

music-making that occurred within their bands. While there was less time in full rehearsal, the quality of that time improved as students better understood how to identify and solve problems. Simple issues were not addressed nearly as often by the teacher in rehearsal, and students took ownership for finding solutions for problems. The students had a deeper understanding of their musical experiences and were able to meaningfully respond to the NCAS essential questions, such as "How do musicians improve the quality of their performance?" and "How do musicians make meaningful connections to creating, performing, and responding?"²² Students explained to me that going through this process helped them move from a position of understanding the mechanics of creating a musical performance to being able to understand how and why music is created and the roles and responsibilities they personally have in that creation.

If critical thinking and musical independence are desired results of large-ensemble participation, it is critical that teachers prepare students through intentional instruction and by providing opportunities for students to develop and experience independent music-making. Too often, students are placed into situations, such as chamber ensembles or sectionals, in which they are expected to critically think and make musical decisions without the preparation that will allow them to be successful. Perhaps we assume that because we use solid rehearsal strategies, our students implicitly learn these strategies and the cognitive skills behind them. But unless students are given the explicit opportunity to learn and develop these competencies, this transfer of learning likely does not occur, and our students may not develop independent cognitive skills.²³

The cognitive apprenticeship approach of modeling, coaching, and fading provides one way in which student critical thinking can be taught and reinforced, leading to musical independence. As teachers, we must make sure that we are *directors as educators*

who provide scaffolded experiences for music-making and help build students' competencies to effectively engage in independent music-making, both within and outside our music classrooms.

Postlude

The saxophone quartet stops, and Katy turns to Brody. "Something isn't right. Either we're holding too long, or you're holding too short. Is it our big A?"

Brody reaches across the stands. "Can I see your part? I think I'm starting the descending eighth notes late to adjust to it."

He nods, and Katy says, "Just the one measure," as she taps four beats loudly with her foot. The ensemble plays the single measure three times in a row, a little faster each time.

"Got it!" says Katy. "Let's put it together from the start of the trio." And on they play.

Additional Resources on Musical Independence

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- Richard Cangro, "Let Them Talk in Your Rehearsal!" National Association for Music Education, 2016, <http://www.nafme.org/let-talk-rehearsal/>.
- Stephanie Prichard, "Practice Makes Perfect? Effective Practice Instruction in Large Ensembles," *Music Educators Journal* 99, no. 2 (2012): 58.

NOTES

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