The Dos (and Don’ts) of Tuning a Large String Orchestra

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I don’t always play in tune. But, when I do, it’s during a rest.

THE TUNING PROCESS

A structured tuning process hinges on directors’ perceptions of how their students will best learn to tune. Processes include aural, visual, and tactile awareness; pedagogies that are developed over time, and can still be learned in a group setting (and refined individually) in fun ways. On one hand, directors may choose to utilize a generated pitch, the source of which comes from either a digital source or from an instrument. In 2011, Alexander studied the comparison of these two options and discovered that utilizing either technique is helpful. However, while the source of the pitch may not differ significantly from one to the other, the close proximity to the source of the pitch is vital in ensuring tuning success. If, however, directors choose to utilize tuning devices, like digital tuners, they must find ways to use these tools without creating student dependence on the tuning device for successful tuning individually and within an ensemble performance setting.

RESEARCH
- The key to helping your students achieve tuning independence begins with a well-designed process that spans the different stages of musical development in young musicians (Alexander, 2008, 2011; Byo, Schlegel, Clark, 2011; Hamann & Gillespie, 2019; Hopkins, 2002, 2013).
- To ensure a successful transition, careful consideration should be made in choosing how to introduce tuning from the string class to the orchestra rehearsal (Geringer, MacLeod, & Sasanfar, 2015; Hopkins, 2012).
- Choosing how to implement your tuning process, however, can be challenging since there are major differences between how teachers approach tuning activities, including using digital tuners, within the classroom (Alexander, 2011; Hopkins, 2013).

AURAL SKILLS: THE KEY TO INDIVIDUAL AND ENSEMBLE TUNING

<table>
<thead>
<tr>
<th>GOALS</th>
<th>BEGINNER</th>
<th>INTERMEDIATE</th>
<th>ADVANCED</th>
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</thead>
<tbody>
<tr>
<td>Perform by ear melodic tetrachord/octave patterns (major/minor)</td>
<td>Improvise melodic patterns (octave)</td>
<td>Perform by ear tonal patterns, melodies, and accompaniments with chromatics and varying tonalities</td>
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<tr>
<td>Identify whether melodic tonal patterns are the same</td>
<td>Improvise harmonic tonal patterns</td>
<td>Improve melodies and patterns with chromatics and varying tonalities</td>
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<tr>
<td>Identify direction of melodic tetrachord motion</td>
<td>Alter melodies and harmonies (major to minor and vice versa)</td>
<td>Identify triads to accompany scales</td>
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<tr>
<td>Perform by ear harmonic tetrachord</td>
<td>Match simple double stops</td>
<td>Identify triads to accompany melodies</td>
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<tr>
<td>Improvise melodic patterns (tetrachord)</td>
<td>Develop ensemble triads</td>
<td>Perform by ear melodic patterns (octave)</td>
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<td>Manipulate single pitches to adjust intonation</td>
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CRUTCHES
- Digital tuner
- Teacher always doing the tuning
- Teacher always indicating high/low
- Always tuning in the exact same manner
- Focus only on fine tuners
- Tuning only by plucking

GAMES
- Hide and Seek
- Hot and Cold
- Follow the Hand (Pitch Benders)
- Echoes (unison/octaves)
- Telephone (individual and section)
- Alter pitch in melody
- Extended echoes (6-8)
- Major/minor arpeggios
- One-finger scales
- X-Scale (different starting notes)
- BINGO scales (leave notes out)
- Drones and playing with I, V, and IV
- Tuning Cycle
  - Show Me the Money
  - Hide Your Sound
  - Echoes with simple double stops
  - Discover pedals for simple tunes and one octave scales (using I, IV, and V).
  - Discover tunes in new keys!
  - Once triads established, student leader displays the chord progression
  - Chord progression modeled on piano and students echo
  - Pitch benders in triads (troublesome chords in the rep)
  - Tuning Cycle (advanced variation)
    - One section plays scale and rest of ensemble accompanies (root first, then add triad)
    - One section plays simple melody and rest of ensemble accompanies (root first, then add triad)
    - Chorales
    - Improvisation (simple steps first: rhythm, I-IV-V-I progression root, add triads)

ADDITIONAL TECHNIQUE BOOSTERS
<table>
<thead>
<tr>
<th>Aural Skills</th>
<th>Left Hand</th>
<th>Right Hand</th>
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</thead>
<tbody>
<tr>
<td>Sing/Audiate</td>
<td>Body/Instrument Coordination</td>
<td>LH/RH Coordination</td>
</tr>
<tr>
<td>Pitch Match/Aural Stimulus</td>
<td>Left hand shape</td>
<td>Modify games using slurs and bowings/articulations</td>
</tr>
<tr>
<td>Listen/Blend</td>
<td>Finger patterns and hand shapes</td>
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<tr>
<td>Tuning within/between sections</td>
<td>Shifting</td>
<td></td>
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<tr>
<td>Tuning within the ensemble</td>
<td>Vibrato</td>
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SHARE YOUR FAVORITE STRATEGIES
Then raid the Google Doc for more fun ideas → → →

TUNING YOUR ENSEMBLE
- Start from singing, then apply to instrument pizzicato and transition to bow once student coordination more established
  - Analyze high or low
  - Sing and match pitch
  - Match pitch on instrument (open string)
  - Apply as body movement exercise (pitch benders)
- Next, one string at a time (upper half, lane 3)
  - Basses - Cellos - Violas - Violin II - Violin I
  - By individuals (think “Pass the F” or “Hide Your Sound”)
  - By stand partners or sections
- Then, one string at a time, but hearing fifths across ensemble
  - All tune A to pitch source
  - Ensemble continues to play A while basses perform D, cellos, violas, etc.
  - All hold D and match within ensemble
  - Etc.
- Finally, double stop tuning for upper strings & harmonic tuning for lower strings

![QR Code Image]
• Few tips & tricks
  o Righty Tighty - Lefty Loosey / Toward higher string = higher, toward lower string = lower
  o 5ths (Teacher tunes 2 out of 3, then Teacher tunes only middle 5th)
  o “Thumbs Up - Thumbs Down - STOP!”

DIGITAL TUNERS AS A TOOL, NOT A CRUTCH
• Tuner Method
  o Pitch generators
    ▪ Instrument
    ▪ Machine
  o Visual tuners
    ▪ Traditional Digital Tuners
    ▪ Snarks
    ▪ Phone Apps
• Strategies
  o Half & Half
  o Pass the Pitch
  o Safety Checks
  o Roll the Dice
• Don’t forget about the hundreds of years of using our ears

THANK YOU FOR COMING AND HAPPY TUNING!
RESOURCES


Gillespie, R. (2010). Teaching aural skills in the string class: Getting your students to hear what you hear. Session/Class Handout.


Kansas Model Curricular Standards for Music (2005). Available at: [https://www.ksde.org](https://www.ksde.org)

Music Standards Review and Revision Committee (2020). Colorado Academic Standards. Available at: [https://www.cde.state.co.us/coarts/2020cas-mu-p12](https://www.cde.state.co.us/coarts/2020cas-mu-p12)


Texas Education Agency (September 2012). Fine Arts Texas Essential Knowledge and Skills. Available at: [https://tea.texas.gov/Academics/Curriculum_Standards/TEKS_Texas_Essential_Knowledge_and_Skills%28TEKS%29_Review/Fine_Arts_Texas_Essential_Knowledge_and_Skills](https://tea.texas.gov/Academics/Curriculum_Standards/TEKS_Texas_Essential_Knowledge_and_Skills%28TEKS%29_Review/Fine_Arts_Texas_Essential_Knowledge_and_Skills)

