

“But it was tuned at the factory!”

How to develop students into independent tuning machines

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Creation of Intonation Problems

Music History

- Addition of a second and third voices to Gregorian Chant
- Transition from Modes to Major/Minor Harmonic System
- Creation of a system whereby all 12 notes are separated by equal distances
“Equal Temperament”
- Baroque Era ensembles consisting of more than one instrument family.
“Broken Consort”
- Variations of pitch frequencies ranging from 400-450Hz

Baroque – A=415Hz

1850’s – A=435Hz

USA in 1926 – A=440Hz

International standard set in 1955 – A=440Hz

Kids, Parents and Instruments

- Instrument condition
- Proper Posture
- Breath Support
- Left Hand Position (Strings), Flat Fingers, Bent Wrist
- Embouchure Issues
- Reeds, adequate mouthpieces, and barrel lengths
- Condition of Brass mouthpiece
- No directed/recommended listening to music. (i.e. How should a clarinet really sound?)
- Knowledge of specific instrument tendencies regarding intonation.

Okay, Now What?

Starters

- Use a Drone in the tuning process
- Tune with the ear, not the eye
- Find opportunities to listen to tonal music (classroom or home)
- Listen for hidden pitch issues. Usually hides within the middle and bottom voices. Most pitch problems in ensembles occur here.
- Slower music (i.e., Scales/Chorales) can always aid in improving intonation.
- Try to keep temperature of rehearsal space around 72 degrees.

Individual Instruments

- Initially, students learn to equate a note/pitch with a specific fingering or position, not how it sounds. Ensure each student understands their role in note/pitch control on their instrument. Intonation will improve.
- Use a Tuner for checking the pitch of individual instruments. Ensure students know how to properly adjust slides, mouthpieces, or barrels, etc.
- Decide what instrument will give the pitch for the ensemble tuning. Make sure they use a tuner and strive to play with a beautiful full tone as well as being “in tune”
- Consistently reinforce with your students about posture, breath support, hand/instrument position, etc.

Groups or Families of Instruments

- Have students practice sections of music through ear training. Sing it, now play it!
- Brass players – buzz at pitch on your mouthpiece, sing, then play.
- Have your ensemble warm-up prior to tuning. Retune in rehearsal (and performance). Band intonation tends rise while playing. Bring pitch back down to 440Hz.
- Use different notes for tuning, not just Bb
- Tune using “families or voices” of instruments
 - Low brass/low reeds
 - Euphonium, Trombone, Tenor Sax, Bass Clarinet
 - Trumpets, Clarinets
 - Flute, Oboe, Eb Clarinet
 - Horn, Alto Saxophone
- Realize which sections of the ensemble primarily play chords
- Establish a routine/procedure for tuning open strings
- Focusing the warm-up material to listening first, tuning second

Exercises for Improving Intonation

Individuals

- Ask students to identify any other instruments who also play their part
- Tune “trios” within sections (you, the person on your immediate left/right)
- Have students work in pairs with a tuner and chart their intonation tendencies on their instruments (Garofalo)
- Use a Major Scale - Play the first note, silently hear the second note, play the third note, etc.
- Have students play a specific tone of a scale. 1, 6, 3, 7, 5, 2, etc.
- Starting on a unison pitch, use hand signals to have the students raise and lower the pitch, then come back to the original pitch level

Ensemble

- Play a chord, and then have the entire ensemble sing the root
- Ensemble plays a Bb Chord, then an Eb chord. Demonstrate how the tuning of the Bb needs to change based on the function of the note in the two chords
- Tune First Chair players, and then have them tune their sections. This makes the students responsible for their intonation.
- Play “F around the room” – start with lowest instruments, play concert F for four counts all the way up through the flutes. Match tone quality, pitch and intonation.
- Memorize a chorale and play it every day. Have the students sing the chorale as well.
- Have the woodwinds play a chorale and have the brass buzz their parts *at pitch* on their mouthpieces.
- Have the brass play a Chorale and have the woodwinds finger their parts and just move air through the entire instrument.
- Interval Listening - using a major scale have the woodwinds play tonic. Have the brass move up the scale pointing out the various intervals within the dissonant and consonant tones. Reverse the process with the brass holding tonics and the woodwinds ascending through the scale.

Keep it Positive and Keep it Going

Most importantly, keep your students playing. Remember, students come to your ensemble to play their instrument, not to spend the whole time tuning. Tuning and intonation needs to be a positive ongoing learning experience and routine during a productive rehearsal.

Developing good intonation within your ensemble should consist of:

- Being consistent with exercises and procedures for warming up and tuning
- Developing procedures/exercises to aid students in listening and adjusting pitch
- A plan to incorporate some singing at every rehearsal
- Positive dialogues with parents and private teachers about an investment for quality instruments. Brand recommendations and purchasing the best instrument for the student
- Developing a long term plan/budget for school instrument purchases
- A foundation of fundamentals of playing each instrument
- Adding opportunity to teach theory as it relates to the music being performed.
- Stopping, listening, and effectively adjusting notes and chords during rehearsal with minimal time impact