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# Intonation Awareness

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# Intonation Awareness

How can I get a flute section to play better in tune?

By: Sarah DeRossi



## Abstract

Young instrumentalists are taught to press buttons or keys to make pitches sound from their instruments, but that doesn't always ensure that they are in the center of the pitch. It also doesn't ensure that they are in tune with those around them. It is important to improve awareness that pitch is not only physical, but conceptual as well. It is important that instrumentalists know how to center pitch and make adjustments while playing their individual instruments, to compensate for tendencies of said instrument. There are many ways to practice this. I met with four flutists three times to try to help them with this process. They sang, used tuners, and created a journal. All of this helped increase awareness of playing in tune. In the end, they found out what adjustments they needed to make individually to get the pitch closer to the center.

## Background Information

There are many topics that are worth being researched when it comes to school band programs. The students are in a constant process of learning and discovering so many aspects of music, musicality, their instruments, and their personal ability level. At the same time, the teacher is also constantly learning how to better guide their students in these discoveries.

I have always wondered how students, whether they were my peers, or students that I was teaching, could play out of tune and just let it go. This is until I realized that it is because they honestly don't know how to fix the issue. The reason I chose intonation as a research project was to increase awareness of intonation issues.

I wanted to be able to give as many tools as possible to increase awareness of not only instrumental tendencies, but also being able to conceptualize pitch. That is, be familiar with what "sharp" or "flat" sounds like. Also, what will the next note in the music sound like; pitch centered?

I used what I already knew and combined it with research. I knew that it is common for band students to think they are in tune on every note because they set their instruments to A440. I also have experienced singing in an instrumental ensemble, so I took those two items and researched from there.

Singing helps students concentrate on the pitch they hear in their minds without being led astray by the characteristics of their instruments or the limitations of their technique. When students are properly guided, singing can help them develop their aural perception and provide an alternative to a "button-pushing" mentality. This mistaken frame of mind suggests that playing in tune requires simply having the instrument pulled to the correct length while fingering the right note. Students must be taught to hear the music they are producing, not just to simply see it.

## Methodology

Meeting 1 with the Lake Central High School Symphonic Band flute section of 4.

Warm-up on a scale.

Pre-test: Low-Mid Register

-Using tuner, wrote down on chart how far off each note was from the center of each pitch.

-Directions for improvement – individual practice time before next meeting:

1. Using tuner, set instrument to A440. If a note settles more than 10 cents in either direction, record it in journal along with what was done to fix it (e.g. lift chin, change in air stream direction, faster air etc)
2. Sing. Use a tuner to tune the first note (in this case, D4, then sing up through the 5th. Then play. Repeat as necessary. Sing up the rest of the way, play up the rest of the way. Again, repeat as necessary. Then play on flute, sing to match, do it 3 times.

Meeting 2: Go over journals and answer questions. Warm-up. With tuner: Post test low-middle register. Pre-test middle-high register. Assignment for next time: Middle-high register journals

Meeting 3. Go over journals and answer questions. Warm-up. Post-test middle-high register, completing the "before and after" charts.

## Research Instrument(s)

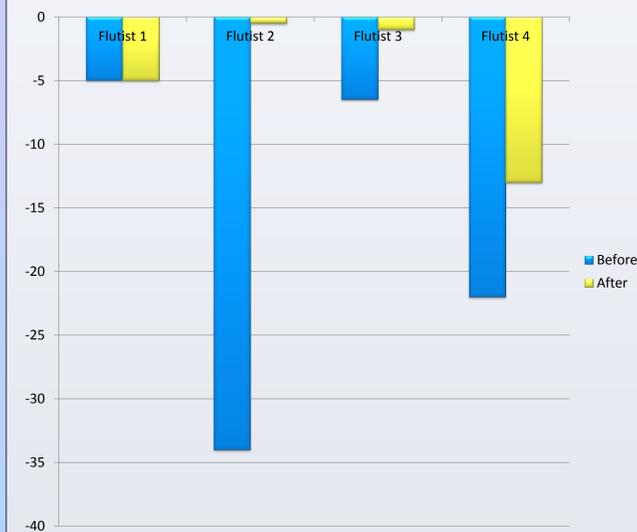
1. Using the tuner to fix individual tuning
2. Using singing to better conceptualize pitch
3. Using journals to record the tendencies on individual instruments.

## Data Analysis

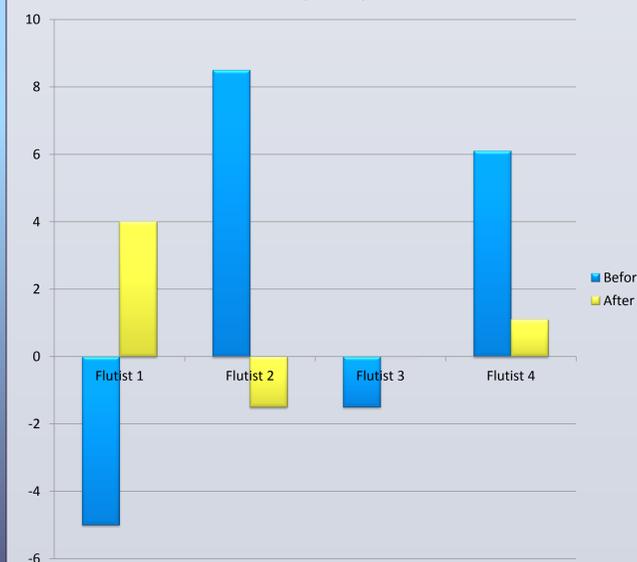
*Before* and *After* charts were averaged for each student. The goal was that after practice (increasing awareness) to have the *After* number be smaller than the *Before* number on each chart.

## Results

Before – After: D4-F5 low to middle register Averages (Cents)



Before – After: G5-A6 Middle to High Register Averages (Cents)



## Conclusion/Discussion

### Implications

- From just a small amount of time focusing on tuning, each student showed progress on bringing their average closer to 0 cents.

### Limitations

- The biggest limitation for this research study was time. They didn't have time to go back and re-practice and update their journals as they went along and made discoveries about their playing. The numbers might have been even more dramatic if they had more time.

### Impact

- The students now have a journal of how they need to adjust for tuning on their particular instruments. Due to guidance and increased awareness, they also have a greater sense of listening for the center of the pitch; listening not only to themselves, but to each other, and to the ensemble as a whole.
- As a teacher education candidate, this research project allowed me to put into action what I already felt were good ideas for teaching. The only new question I would pose would be: How do you get a full ensemble on board with this kind of teaching without being able to work individually with every student?

- This is important for the field of education because it shows that with a little guidance, students can go a long way. It also shows that if the students are not doing what the teacher is hoping they will do, chances are they do not understand how to do the task. If band directors ignore recurring tuning problems in hopes they will get better, chances are they will not unless every student has private lessons. Without that luxury, a little guidance and reinforcement goes a long way.

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