Tone production, Articulation, and Technical Development

Most of the problems experienced by band directors and teachers when working with their clarinet students can be grouped into these three categories. This clinic focuses on identifying specific problems in these areas and presents some practical solutions. The discussion will also explore how these problems can be prevented with some useful tips for teaching beginners.

Tone Production

There are three primary factors in producing a good clarinet tone: Air, Embouchure and Tongue Position. These fundamentals are weighted and can be seen as forming a tone production pyramid.

As a student matures as a player, the proper use of the air is the most important area for refining and developing a beautiful and flexible tone. However, for the beginning clarinetist (or for those older students who lack basic skills), proper embouchure habits can have more impact. For this reason, this clinic will begin by looking at the embouchure.
Embouchure

Most embouchure problems in older students stem from 1) an improper shape, 2) loose grip pressure, 3) excessive tightness and/or 4) amount of mouthpiece and angle of instrument. These habits cause problems in tone quality, intonation and technical response.

General Embouchure Review for Older Students

1. The embouchure grip should be firm but not excessively tight. Think of a firm handshake.

2. To form a perfect embouchure, say “ooh” firmly. Notice how the sides of the mouth push forward towards a point. A firmly formed whistling shape or blowing through a straw will achieve the same result. With this basic shape, relax the bottom lip slightly so that it can roll back over the bottom teeth as you insert the instrument into the mouth.

3. If done correctly, the chin will be flat and pointed in the correct way. Avoid teaching your students to form the flat chin first. The embouchure muscles will go the wrong way!

4. The “ooh” embouchure also causes the jaws to separate a little more, which allows for more depth of sound. This will create a fuller tone and improve intonation.

Quick Fixes

1. For a loose embouchure, the student should do the obvious: squeeze more firmly with the lips. An increase in air pressure might also help coax the lips to squeeze the mouthpiece properly.

2. For a tight embouchure, have the students put the instrument in their mouth with a firm “ooh” embouchure. Next, have them pause a moment and relax the jaws at the hinge. Then have them blow. If the reed is hard and airy sounding, try using a softer reed.

3. A more advanced student might benefit from exploring the Double Lip Embouchure. Double Lip (holding the mouthpiece with the lips only and not the top teeth) is a wonderful way to develop proper embouchure shape and jaw pressure. Although Double Lip Embouchure is not recommended as a permanent change, it is a good practice tool. The student should switch back and forth on small phrases until the single lip embouchure has the depth and warmth of the Double Lip Embouchure.

4. Reeds are a very important variable. If students begin to have problems with fundamentals after they switch reeds, tell them to get rid of the reed. If the student squeaks a lot, rubs their jaws after playing a phrase, or if their bottom lip is sore, the reed should be thrown away immediately.

Many of these problems seen in older students can be avoided with proper teaching and monitoring of embouchure formation at the early stages. The following page provides some useful tips for teaching and developing the embouchure with beginning students.
• Place the thumb, index, and third fingers of your left hand gently around the barrel and mouthpiece assembly. It is very important that you do not close or cover the open end of the barrel when you play.

• Place the index and middle fingers of your right hand on the bottom of your chin. Open your mouth in an “ahh” shape.

• Rest the reed against your bottom lip. Stretch the bottom lip slightly over the bottom teeth to make a firm cushion for the reed and mouthpiece. Keep your fingers on the bottom of your chin.

• Put your top teeth firmly onto the front of the mouthpiece. The top teeth should be firm enough to keep the mouthpiece from moving inside your mouth. You can take your fingers off your chin once your teeth are in place.

• Close your lips around the mouthpiece. The corners of your mouth should be down and in and feel very snug.

• Take a breath through the corners of your mouth and blow.

Top 5 Embouchure Mistakes That Contribute To Poor Tone Quality in Younger Players:

5. Tongue Position is too low.
4. Corners are relaxed or in the ‘smiley face’ position (*see photos below)
3. Bottom Lip is too loose.
2. Not enough mouthpiece inside the mouth.
1. Top Teeth are NOT gripping the mouthpiece!

*Tell the student to bring corners down and in, much like the ‘straw’ analogy or as in saying ‘ooh.’
Air Support

With older students, the use of the air and air support become the most significant cause of tone production problems. Proper air support is also a major contributor to most problems in articulation, intonation and technique.

What is air support exactly?

Proper air support is a by-product of a fast and free air-stream coming in contact with the resistance of the mouthpiece, reed and embouchure. It is not a physical act of firmness or the creation of tension in the body.

Common Problems With Older Students

1. “Wimpy Air”, lack of a full, fast and free air stream
2. Tight or locked up diaphragm muscles, especially towards the end of the breath
3. Collapsing of the upper wind pipe near the collar-bone

Tips for Developing and Improving the Use of the Air (Beginners and Advanced Students)

1. Have student play a lot louder (beginners and timid players). This simple request can have a dramatic impact. Long tones, scales or any exercises can be used. By developing the skills and confidence to play louder, students will learn to release tension in their lungs and upper windpipe, which are the causes for most tone production problems.
2. Take full breaths, expand upper lungs near the collar-bone.
3. Keep the diaphragm out and relaxed throughout the entire exhalation process.
4. Keep the upper chest and lower throat area open at all times while slurring or articulating.
5. Keep a comfortable air pressure at the lips. Do not regulate air speed by closing the throat.

Exercises and Tricks

1. Play a very loud low E to feel the expansion of the upper windpipe expand and jaw separation. Immediately play any scale, exercises or musical passage that needs more support and power.
2. Without the clarinet, take a full breath, say “ooh” with a pucker so the hole in the lips is tiny and creates a comfortable resistance when you blow through it. Blow through the hole in a relaxed way and exhale for 10-20 seconds. Concentrate on keeping the openness of the windpipe and diaphragm, especially at the end of the breath. (One could do this with a soda straw as well)
3. Get a plastic grocery bag and a 10 to 12 inch piece of clear tubing (1/2” or 5/8” in diameter). Insert the tube halfway into the bag, breathe in and out with huge breaths. The bag should inflate and deflate with the breath and prevents hyperventilating. Take 10 large and wasteful breaths. Put the bag down take a deep breath and play the instrument.

Voicing and Intonation

1. The correct voicing for the entire range of the instrument is an “e” vowel. Have students say “he” and notice where the sides of the tongue come in contact with the molars. “He” on the inside and “ooh” on the outside is the perfect embouchure/voicing combination.

2. Basic intonation problems caused by tone production can generally be addressed by a simple idea:

   Anything that causes the jaws to bite will cause sharpness, anything that causes the jaws to loosen causes flatness.

Before adjusting the instrument for intonation, check the following:

1. Review exercises on the air and embouchure to make sure there is not excessive tightness in lungs and embouchure. Tightness is a source of sharpness.

2. Try to maintain a free and flowing air stream at all dynamic levels.

3. Think of a firm round “ooh” embouchure. Pushing the sides going forward will keep the pitch lower.

4. Keep tongue in a “he” position. A more focused and refined tone is much easier to tune.

5. Do not use a reed that is hard or airy sounding, even if it is new. It will always be sharp.

6. Check for a loose embouchure grip, soft reeds, old reeds and low tongue position. These are causes for flatness.

7. Tune the left hand notes by playing a concert F. Pull the barrel in or out to adjust pitch. To tune the right hand notes, play a concert Bb and adjust the middle joint.

8. Tune with a tone that is a healthy forte or mezzo forte.

To work on voicing and intonation, refer to register shift exercise at the end of the handout.

Articulation

“The tongue must adapt to the environment of the air. The air does not serve the tongue, the tongue must serve the air”

5 Most Common problems with Articulation

1. Tongue does not touch the reed at all
2. Ha-Ha Tonguing, throat closes during tonguing stroke
3. Loose embouchure, jaw movement and excessive tongue stroke, “chewing”
4. Slow tonguing speed due to clipping notes and slurs
5. Lack of a crisp, popping staccato

Some Quick Fixes for the Older Student

1. Emphasize a firmer “ooh” embouchure.
2. “Knee, knee, knee” tonguing motion. Motion should be vertical and efficient. Tonguing can be thought of as a series of releases accompanied by proper air support.
3. Avoid clipping slurs and long notes, especially in fast passages.
4. Faster tonguing is created by a light and legato tonguing stroke. The faster the articulation the more legato it becomes.
5. “The tongue is inherently slow; the fingers are inherently fast” – Howard Klug, IU
6. Think of the tongue being used only to start notes, not to end them. Sometimes clipping is appropriate for stylistic reasons, but usually it cause problems in tonguing quality and speed.
7. If the throat is closed while articulating, there is not enough air pressure at the lips to get a clear popping staccato.

Tips for the Beginner (Development)

1. Several times every semester, check to make sure students are tonguing on the reed.
2. “Tip of the tongue to the tip of the reed”
3. Master the legato stroke. Keep the tip of the tongue close to the tip of the reed. Emphasize a “thee” articulation. Substitute different consonants for “th” such as “dee, dee, dee” or “tee, tee, tee, tee”
4. Staccato should be approached through a firmer embouchure grip, air pressure at the lips, and the tongue releasing quickly from the reed.
5. There should be no jaw movement during the articulation stroke. Keep the tip of the tongue near the reed with a firm embouchure. Emphasize that tonguing is a vertical stroke: “knee, knee, knee” motion.
6. Speed should be developed with sensible exercises, short bursts of articulated notes. Avoid assigning an entire page of music that is fast with every note articulated. Use material that resembles what a student would typically experience in a piece of music.
“How To” Introduce Tonguing to Beginners

- Daily tonguing practice is essential for developing the ability to articulate.
- Start on the barrel and mouthpiece (F#). Errors are more apparent when variables are reduced.

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Breath starter... tip of the tongue ..................... to the top of the reed .................. gradually increase speed.
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1. Breath-start each whole note to establish a good sound **first**.
2. While sustaining the whole note, tell the student to “touch the **top** of the reed with the **tip** of the tongue.”
3. Tongue is high and forward, close to the reed.
4. Choose a syllable that creates the best sound - “Thee”, “Tee”, etc.
   **Don’t forget about your English-as-a-second-language students. One syllable may not fit all!**

Tonguing Burst Practice

- A bad articulated sound is generally caused by excessive motion of the tongue. Most students try too hard and move the tongue too much.
- **Embouchure Movement:** Start the exercise at the absolute fastest speed that the student can go. It is very difficult to move the embouchure at fast speeds. Over time, work backwards to slower speeds.
- The inability to articulate clearly may be caused from tonguing the bottom lip, the roof of the mouth, or tonguing only one side of the reed.

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Start with short bursts of 5 notes... Increase as technique improves.
Practice in all octaves on every note possible!
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“Must Do” Articulated Scale Patterns for Development and Maintenance of Good Technique

All slurred first to check for even fingers.

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Slur 2, Slur 2, to develop smooth, light tongue stroke.
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Slur 2, Tongue 2 with emphasis on first note under a slur **always**!
Let speed take care of shortness on tongued notes.
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Tongue up, Slur Down - a necessity for almost all literature.
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Technical Development

Developing good technique involves 1) good hand position and finger control, 2) understanding of how to use the body in relation to its execution, and 3) intelligent practicing strategies.

“Knowledge is not skill, knowledge and 10,000 times is skill” - Shinichi Suzuki

Common Problems with Technique

- Finger motion mechanics, coordination
- Excess tension in the fingers and hands
- Hand position
- Poor practice habits, lack of repetitions and coherent practice strategies

Some Tips For The Older Student

- Regularly review the fundamentals of hand position. Let the arms hang from the sides and notice the relaxed “C” shape of your hand. This is the basis for hand position.

- Keep the fingers arched and relaxed. Relax the palms and wrists.

- Monitor collapsed knuckles, squeezing the instrument tightly, and awkward finger placement. The fingers should be relatively perpendicular to the instrument and relaxed in a “C” shape.

- The thumb rest should be placed partly on the thumbnail and on the side of the knuckle.

- For most students, lifting fingers away from the instrument is more difficult then pushing them down on the holes and keys. To practice dexterity, practice lifting the fingers quickly away from the instrument.

- Speed is achieved through relaxing the fingers and arms and letting the notes happen. We can’t force the fingers to be effortless. The faster the music, the more we must rely on the ear to guide the fingers.

Technique Development

- Have students practice slow scales while monitoring basic hand position. Tell them to lift fingers from the knuckles, quickly but with little tension. Lower fingers to the instrument also from the knuckles, keeping the fingers arched. The fingers have to cover the holes, not squeeze the instrument. This type of guided practice is especially important for intermediate and advanced students. When hands are relaxed, there is no impulse or energy to pull them away too far from the instrument.

- Scales, arpeggio studies, thirds or other basics are all appropriate materials for technique development. Start slow and think in terms of developing over years instead of weeks. Keep fingers relaxed as well as the hands, wrists and body. Practice this daily and expect a gradual increase in speed over time.
• Practice fast technique at a slow tempo. Students often practice with a heavy, over-done hand motion at slow tempos. Practicing slowly has a different “feel” than playing at fast tempos.

• Any scale or technique method book will work as long as good hand position and proper finger motion is present.

Practicing Tips

• Have an organized strategy comprised of practice methods and a metronome. Simply telling students to slow down and do repetitions is usually not structured enough to get the job done. Use a variety of practice techniques.

• Let time work for the student. Repetition, done regularly over an extended time period, is far more effective than practicing sporadically for long lengths of time. Work with students to plan a strategy over the time frame available.

• Repetitions should focus on tone productions skills as well as the correct notes and rhythms. It is often the body that obstructs the facility needed to execute a passage properly.

Concluding Comments

• Try to understand the basic concepts of air, embouchure, voicing, articulation, hand position and practice habits and repeat them over and over to your students for as many years as you have them.

• All of these ideas can be introduced in the first year, and with monitoring you will avoid many of the bad habits that arise down the road.

• Generally the more natural and effortless the body can be in all aspect of playing the clarinet, the better off the student will be in their development.

• Always start a diagnosis of problems with checking air and air support skills, then branch out into the other fundamentals addressed in this talk.
Chalumeau to Clarion Register Shift Exercise

1. Use plenty of air. Air is always an issue.
2. Think “HEE”. A high and forward tongue position will produce the best tone in both registers.
3. Do not let the clarion notes “pop” out. They will not be helped by blowing harder.
4. 12 beats in one breath dictates tempo. Work to play as slow as possible. Slur everything.

Advanced Register Shift Exercise

- Practice the exercise below for a few minutes each day, only after warming up.
- Play at a reasonably slow tempo. Slur everything.
- Try using an “O” shaped air-stream as you ascend above high C.
- Keep each phrase at a constant dynamic level. No screaming please!