As a university teacher for over 30 years I've noticed a steady decline in clarinet technique with high school students. We, as music educators, must insure that our clarinet students possess the technique that is needed to perform the basic repertoire in our ensembles as well as solo repertoire. And, if we are to grow the abilities that our students possess, to perform not only standard works, but those written in the 21st century, we must work to grow and strengthen technique.

We know from studies that certain parts of our brain control technique. This clinic will give specific exercises to grow this technique - basic exercises that can be accomplished at the beginning of any band rehearsal or the first 5 minutes of any private lesson.

No amount of teaching can teach technique when fundamentals are incorrect.

10 STEPS TO BETTER CLARINET PERFORMANCE

I. Embouchure
A good embouchure allows a clarinetist to produce a good sound, with correct intonation, with any articulation, in any register, without a noticeable embouchure change. (See Example 1).

A. Teach specifics - insist on "rightness"
1. Lower lip over lower teeth. Feel teeth 1/2 way between the "pink" line and "wet" line.
2. Mouthpiece between 1/4" and 1/2" in mouth at approximately 30° with the body. Keep head up!
3. Upper teeth on mouthpiece. Patch on mouthpiece often eliminates this problem.
4. Drawstring in lips - pulls lips out and around the mouthpiece. Corners firm, but no smiling.
5. Chin stays pointed as if blowing into a pop bottle.
6. Upper lip stays firm.
7. Breathe through corners of mouth. Teeth do not come off top of mouthpiece!
8. Cheeks will not puff out if corners are firm.
9. Upward pressure into top teeth (see hand position).
10. NO MOVEABLE EMBOUCHURES!
11. Keep head up and clarinet at 30° angle to the body (See Example 2).
12. Mouthpiece-barrel combination should produce a concert F#.

B. Problems associated with the embouchure
1. Small stuffy sound - usually too much lower lip, (or flesh) touching the reed.
   a. bunched chin - insist on firm chin. Pressure to hold the reed must be transferred from the muscles in the chin to those in the jaw.
   b. too much lower lip in the mouth. See above A. 1.
   c. check horn angle to the body. Too close - too much lower lip on the reed
   d. check reed strength (see reeds).
e. check amount of mouthpiece in mouth. Too little does not give enough reed in mouth to vibrate correctly
2. Saliva in sound - check horn angle. Keep head up - horn down (30° to the body). Bring music stand up higher to keep head up.
3. Wild uncontrolled sound
   a. check reed placement (reed too low).
   b. check amount of lower lip in mouth (too little lower lip will cause uncontrolled sound and squeaks).
   c. check horn angle (30° to the body).

II. Tongue

   Tip of Tongue only stops the reed from vibrating.

   A. Tip of tongue touches tip of reed.
      1. Tongue pressure should be no more than that necessary to stop the reed from vibrating.
      2. "Finding" the tip of the tongue
         a. scratch tip of tongue with fingernail or rub against bottom of front teeth to locate exact tip.
         b. place tip of tongue on tip of reed outside mouth.
         c. bring mouthpiece into mouth keeping tongue in place on the reed
         d. form embouchure.
         e. build pressure behind tongue - release reed.
         f. touch tip of tongue to tip of reed many times, denting the sound.
         g. repeat above process but stop reed with tip of tongue.
         h. remove mouthpiece from mouth to check tongue placement.
      3. Back of tongue should remain in "eee" position at all times. This will bring the tongue up and back such that the tip of the tongue can touch the tip of the reed. It is also fundamental to achieving characteristic tone quality and upper (altissimo) register.
      4. Do not allow embouchure to move while tonguing.

   B. How to recognize correct tongue and correct problem tongue.

1. No "TT" sound is present in articulation. Tongue releases the reed, it does not attack the reed.
2. There should be NO visible throat motion during articulation (See Ex. 2).
3. There should be no pitch change during articulation.
4. During rapid articulation the tongue starts and stops the sound.
   Air pressure should not change.
5. How to correct
   a. Student must be made aware of "correct" method of articulation.
   b. above steps should be followed.
6. The tongue consists of a group of muscles that must be "exercised" to respond correctly. An exercise should be used daily to strengthen tongue and good habits (see example 8).

III. Hand position

   A. Instrument must be played with pads of fingers, not tips.
      1. Drop hand to side, bring fingers up to instrument. Keep fingers relaxed. Collapsed "C" position. No squeezing!
      2. Left hand index finger should roll back to play "A" key. This finger should not be lifted to contact the "A" key and should be very close or actually touch the G# key (See Ex. 3a).
      3. Right hand index finger should not support the instrument. This finger should rest next to or slightly above Eb-Bb key in order that side trill keys can reached.

   B. Thumbs
      1. Left thumb should aim at the "2:00" postion. Register key should be played with the side of the thumb, next to the nail (See Ex. 3b).
      2. Thumb rest should contact the right thumb between the nail and first joint. Pressure should be up into upper teeth (See Ex. 3b).
   Neck Strap can be used!
C. Finger motion
   1. Fingers should always remain close to the keys. This will help technique and aid in "over the break" passages.
   2. Mirror practice must be encouraged.

IV. Reed placement and Reeds
   A. Tip of reed should "always" line up with the tip of the mouthpiece.
   B. Reed must line up on the table of the mouthpiece (watch butt as well as tip).
   C. Pick right strength reed
      1. Reed too thick - sound is airy, hard to blow. Can cause severe embouchure problems, especially the bunched chin.
      2. Reed too thin sound buzzy, high notes flat or difficult if not impossible to produce.
      3. Pick good nationally-known brand. Cheaper reeds are just that!

V. Tuning
   A. Tune open G by adjusting between the barrel and upper finger joint. C’s should be tuned between the upper and lower joints. Basic tuning should be done between the barrel and upper finger joint. Right hand pitches can be further adjusted between upper and lower joints.
   B. Use tuning rings to close gap and maintain constant setting.
   C. Venting, dampening and mouth-throat motion should be used to fine tune pitch (See Ex. 4).

VI. Technique
   A. SLOW PRACTICE!
   B. Learn alternate fingerings! (See Examples 5 and 6).

VII. High note production
   A. More mouthpiece can be taken in the mouth to help produce the notes in the initial stages.

B. Keep tongue in "eee" position.
C. No biting!
D. Bugle calls (See Example 7).
E. Articulation in the high register requires much less tongue motion and tongue contact than those in the lower registers.

VIII. Equipment
   A. Keep hands and mouth clean.
   B. Clean instrument with swab, kleenex and handkerchief daily.
   C. Use Q-tip for weekly tone hole cleaning.
   D. Clean corks - wipe off old cork grease weekly.
   E. Oil bore on wood instruments at least once a month.
I. Assembly
   1. teach specific method, one that will not bend keys or unseat pads.
   2. watch for bridge key and side trill keys
   3. grease corks!

IX. Warm-up
   A. Importance of daily warm-up and practice routine cannot be over emphasized (See Example 8).
   B. Measure the quality of warm-up by its effort at improvement.
      1. Long tones
      2. Tonguing
      3. Scale studies

X. Air - The Basis of Tone
   A. Laser beam air.
   B. Soft sound is only less air, not less intense air.
   C. "EEE" tongue position will focus air stream and help maintain rapid air speed.
1. Firm upper lip
2. Firm corners
3. Firm chin
4. Lower lip placement
5. Mouthpiece in mouth
1/2"-14"

Clarinet placement
approx 30 degrees
to the body

No throat motion
during articulation
Example 4

Examples of Venting and Dampening

Add F#/C# to lower  Add G#/Eb to raise
Add right hand fingers to lower  Use A plus 3rd TK

Use "fork" B/F#/ to raise  See alternate fingering chart

Example 5

Some cases where sliding does occur

Exercises to teach Alternate Fingerings

Bugle calls using stopped horn

EXAMPLE 6

B NATURAL  C  C#/D
Clarinet Warm-up

All Shurred. Do not breathe until rests!

Tongue Warm-up

Use same note pattern as above
Use following rhythmic pattern

MM = 72-144 as speed is developed
Exercises for teaching "patterning"
Multiple articulation for clarinet

Robert S. Spring

MULTIPLE ARTICULATION FOR CLARINET
A METHOD
by
ROBERT S. SPRING
PROFESSOR OF CLARINET
ARIZONA STATE UNIVERSITY

Multiple articulation on single reed instruments, although done by virtuoso performers for many years, has only lately been considered a necessity of advanced clarinet performance. The concept is easily learned, and aside from obvious articulation benefits, leads to good basic concepts such as throat relaxation and tongue placement on the reed and in the mouth.

Tongue placement is extremely important for successful multiple articulation. If the tip of the tongue is not touching the tip of the reed, multiple articulation is nearly impossible. To maintain the rocking motion required of the tongue, the front of the tongue must be in the front of the mouth touching the tip of the reed. "Anchor tonguing" (placing the tip of the tongue against the bottom front teeth and touching the reed in an area substantially behind the tip of the tongue), requires too much tongue motion for multiple articulation, especially in the upper register.

The double-tongue is produced by a "TEE-KEE" tongue motion; virtually the same motion used to produce multiple articulation on other woodwind instruments such as flute or instruments of the brass family. The "TEE" sound, produced by touching the tip of the tongue to the roof of the mouth, is modified by touching the tip of the tongue to the tip of the reed. The "K" sound is produced in the normal fashion, although the tongue must be higher and closer to the front of the mouth to produce the sound "KEE". The tongue should normally be placed in the "KEE" position to create the characteristic tone quality and tonal focus needed on the clarinet. The clarinet requires a large amount of "throat" control and proper "voicing" to produce sound in the proper register. If the "KEE" syllable is allowed to relax to "KAH", the upper register will be nearly impossible to produce while double-tonguing.

The study of multiple articulation should begin by working without the instrument, simply pronouncing the syllables recommended above. Since multiple articulation is normally used at a faster tempo that single articulation, it is recommended that the performer not attempt to produce the multiple tongue at a slow tempo. The sounds should be produced no slower than one can single-tongue. A tempo of at least 120 per quarter note is recommended as most advanced players articulate sixteenths at least 112 per quarter note. A metronome is recommended for use during all multiple tongue work. Actual sounds are not produced since the vocal cords are
Multiple articulation for clarinet

Robert S. Spring

not used. The air is directed in the mouth by the tongue as if these sounds were being produced.

Daily practice should be done on the above work without the mouthpiece until the “sylables” can be produced consistently in strict rhythm with the metronome. Rhythms such as those found in Examples 1 and 2 are helpful. The lips should be relaxed and the air used sufficient to blow the lips “out.” There is a tendency to use far less air on “KEE” than “TEE,” creating a weak or ‘lopsided’ sounding articulation. By blowing the lips “out” by the force of the air, the air will be sufficient enough to make the sound production with the mouthpiece inserted in the mouth. Only after this can be consistently achieved should the mouthpiece-barrel combination be used.

With the mouthpiece-barrel combination inserted in the mouth the "TEE-KEE" sound production should continue. No attempt should yet be made to form the embouchure firmly around the mouthpiece. The elimination of certain factors during the learning process allows concentration on one factor of the double-tongue at a time. Make certain the tip of the tongue now moves to touch the tip of the reed, not the roof of the mouth. The same exercises used above (see Examples 1 and 2) should be repeated at this point. Again, there should be no attempt to produce sound, simply maintain the air speed used before the mouthpiece was placed in the mouth.

A problem associated with multiple tonguing is the production of the "KEE" sound with the mouthpiece in the mouth. Many pedagogical methods recommend the practice of rhythmic patterns using only the "KEE" sound with a metronome. While this does relax the tongue in the back of the mouth and train its motion, it can be overdone with the end result the placement of the tongue in the "KAH" position. As stated above, the tongue must remain in the "KEE" position for the upper registers of the clarinet to sound. Some rhythmic patterns to train the "K" syllable can be helpful. Rhythmic patterns suggested in Examples 1 and 2 are effective.

When the exercises mentioned above can be "played" accurately and securely with the mouthpiece in the mouth, lips should gradually tighten around the mouthpiece. With sufficient air pressure, multiple articulation will be produced.

It is important to keep the tempo of the multiple articulation fast enough to justify its use. As was stated earlier, multiple articulation should be used at a tempo too rapid for the single tongue. A tempo of at least that at which one can no longer single tongue should be used, at least sixteenth notes at a quarter note = 120.

Multiple articulation for clarinet

Robert S. Spring

When the sound using the mouthpiece-barrel combination is rhythmically accurate and clean, the remainder of the instrument should be added. Begin with open "G." The following rhythms, (see Examples 1 and 2) should be used, adding more sixteenths as security is felt. KEEP THE PITCH STEADY, NO JAW MOTION. This pattern should continue from low "E" to throat tone "B flat," (see Example 3); then moving into the clarion register until much later. The clarion register requires a feeling of much less tongue motion and should not be attempted until notes in the chameleon register can be articulated with accuracy, speed and ease.

The patterns shown in Examples 1-3 should be used to increase speed, flexibility and accuracy. As mentioned before, the use of a metronome for all of these studies is extremely important to maintain rhythmic accuracy.

It is crucial to leave the "one note mentality" as the double tongue becomes comfortable and clean. The most difficult aspect of multiple tonguing is the coordination of the tongue and fingers. The patterns in Examples 4-9 have proven to be successful. They increase the size of the interval and include scalar studies. Diatonic scales prove to be most beneficial as they are patterns of familiarity. Concentration should be on the cleanliness of the double-tongue and the coordination of fingers and the tongue.

As stated earlier, multiple tonguing in the upper registers of the clarinet requires great control in the mouth and throat and should only be attempted after much success with the lower register. First attempts should be made as in Example 10. As ease is gained in this study, advance should be made to Example 11. Examples 12 and 13 should follow when possible.

The highest "practical" range of the multiple tongue is the highest pitch of the clarion register, the first C above the staff. Although the range is technically unlimited, multiple articulation in the altissimo register is extremely difficult and should not be expected by any but the most advanced performers.

Triple-tonguing is most successful by using a double-tongue with a displaced accent, (TEE-KEE-TEE, KEE-TEE-KEE, TEE-KEE-KEE). Although difficult to feel at first, Exercise 14 has proven successful. It should be noted however that the triple tongue should not be attempted until the double tongue is firmly established (see Examples 14 and 15).

Examples 16 and 17 offer other suggested supplemental studies. The clarinetist is encouraged to compose others that help to achieve success in multiple articulation. The end result should be a command of the multiple tongue from low E to high C.
Robert Spring has been described as "one of this country's most sensitive and talented clarinetists", Arizona Republic, "dazzled his audience...flawless technique", The Clarinet Magazine, and "a formidable soloist...played with great emotional life" Copenhagen, Denmark, Politiken. Spring's recording of Grawemeier Award winning composer Joan Tower's works for clarinet was described by The Clarinet Magazine as "truly outstanding...one would be hard pressed to find better performances of contemporary music....first rate music performed with the highest professional standards." The Instrumentalist Magazine says of his recording, "Dragon's Tongue", a CD of virtuoso music for clarinet and wind band, "His musicality and technique make this recording a must for every CD collection." Fanfare Magazine says of the CD, "Tarantelle", music that the famous violinist Jascha Heifetz recorded on violin, being performed on clarinet, "This recording was meant to amaze and, man, it succeeds."

The America Record Guide writes about his recent recording of the Copland Clarinet Concerto, "Spring is fabulous in the Copland. His phrasing is elegant swing tailored with great flow and a spread of tone colors and expressive subtleties. His low- and mid-range are especially warm, rich, and embracing and highly effective in the introduction and in the bridge to the jazzy finale. And boy what a finale! The pace is neatly judged to pick up at critical junctures so that, by the end, it feels like an improvised jam session."

Spring attended the University of Michigan where he was awarded three degrees, including the Doctor of Musical Arts degree. He was recently awarded the "Citation of Merit Award" from the School of Music Alumni Society. His teachers included John Mohler, David Shifrin and Paul Shaller. Spring has performed as a recitalist or soloist with symphony orchestras and wind bands in the United States, Canada, Europe, Asia and South America, and has been heard in the United States on National Public Radio's, Performance Today. He frequently serves as clinician and adjudicator and teaches on the faculties of several summer music festivals. He has published numerous articles on multiple articulation and other contemporary clarinet techniques.

Spring was President of the International Clarinet Association from 1998-2000 and has performed for numerous International Clarinet Association conventions. He hosted the 1995 International Clarinet Association ClarinetFest at Arizona State University where he is presently Evelyn Smith Professor of Music in Clarinet. Dr. Spring is also a guest professor at the Beijing Central Conservatory of Music and principal clarinet of the ProMusica Chamber Orchestra of Columbus, OH. He is a Buffet Artist, and plays the Buffet Greenline Clarinet exclusively.