

TROMBONE EMBOUCHURE TYPE SELF-ASSESSMENT

by

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ABSTRACT

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Trombone Embouchure Type Self-Assessment

Thesis directed by Dr. William Stanley

The focus of this study is to create a self-assessment tool with which the user may identify their own embouchure type. The assessment criteria and embouchure types are derived from the embouchure pedagogy of Donald Reinhardt as revised and clarified by Doug Elliott and David Wilken. Three possible embouchure types include Very High Placement, Medium High Placement, and Low Placement. This study utilizes audio/video recordings, user-recorded musical examples, pre-recorded musical examples, self-observation analysis questions, external observation questions, and comparative analysis questions for assessment.

The resulting study complements my other dissertation study, *Selected Published Literature Concerning Trombone Embouchure: An Evaluation and Reference* (2020), which provides accessible information about embouchure-related content in trombone pedagogical literature. In conjunction, these two studies allow trombonists and teachers to filter the reviewed texts according to their compatibility with each of the specified embouchure types.

Outline of Assessment Contents

- I. Record the playing examples.
 - a. Camera Setup
 - b. Record Octaves Exercise from each angle
 - c. Record Bends Exercise from each angle
- II. Self-Observation Analysis Questions: Octaves Exercise
- III. Self-Observation Analysis Questions: Bends Exercise
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- V. Comparative Analysis Octaves Questions
- VI. Secondary Confirmation Questions
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I. Record the playing examples.

- a. Set up a camera or smart device with video recording capability on a music stand so that the camera frames your face clearly. Set the camera to record straight on, then re-record again to capture the side view.
- b. Octaves Exercise: Refer to the included sheet music exercise. The first line includes an octave interval exercise.
 - i. Play and record this from both front and side camera angles.
 - ii. Strive for your best accuracy and tone, but perfection is not necessary.
 - iii. Refer to the following example: [Click here](#)
- c. Bends Exercise: Next, record yourself in the same manner while sustaining a middle Bb. Refer to the following example: [Click here](#)
 - i. While sustaining a middle Bb, add slight pressure with the right-hand index finger in each of the following directions:
 1. Upward toward nose;
 2. downward toward chin;
 3. upward and left toward left ear;
 4. upward and right toward right ear;
 5. downward and left toward left foot;
 6. downward and right toward right foot.
 - ii. As you play this, try to sustain the note, no matter what happens to the pitch. The pressure of your finger should be gently forcing the mouthpiece, together with the lips, to slide over the teeth in the direction of the applied pressure. It should not primarily be forcing a tilting action of the instrument's angle. Allow the movement of the mouthpiece and whatever effects that has on the pitch and tone, but try to sustain the note (even if the note is forced to change in pitch).
 - iii. Record this again with the camera at the other angle (either front or side view).

II. Self-Observation Analysis Questions: Octaves Exercise

Instructions: Choose the most accurate option, based on observing your video recording of the provided octaves exercise:

1. When ascending to the high Bb, your
 - a. mouthpiece moves slightly upward, closer toward your nose.
 - b. mouthpiece moves slightly downward, closer toward your chin.
 - c. mouthpiece does not clearly move upward or downward, but the centered tone quality and good intonation are maintained consistently through both notes.
 - d. mouthpiece does not clearly move upward or downward, but the tone quality and intonation are inconsistent between the two notes.

2. By estimating the distance from where your lips meet, to the upper and lower edges of your mouthpiece rim, when playing the high Bb, you
 - a. have significantly more upper lip than lower lip inside the mouthpiece (over 70% upper lip).
 - b. Have only slightly more upper lip than lower lip inside the mouthpiece (50-70% upper lip).
 - c. Have significantly more lower lip than upper lip inside the mouthpiece.

3. When descending from the middle Bb to the low Bb, your
 - a. mouthpiece moves slightly upward, closer to your nose.
 - b. mouthpiece moves slightly downward, closer toward your chin.
 - c. mouthpiece does not clearly move upward or downward, but the centered tone quality and good intonation are maintained consistently through both notes.
 - d. mouthpiece does not clearly move upward or downward, but the tone quality and intonation are inconsistent between the two notes.

4. Of these two options, your mouthpiece placement is higher (closer to your nose) when you play the
 - a. high Bb
 - b. low Bb
 - c. high and low Bb have similar vertical placement to middle Bb

5. Observe your sustained middle Bb. By estimating the distance from where your lips meet, to the upper and lower edges of your mouthpiece rim, your mouthpiece placement looks to cover
 - a. Significantly more upper lip than lower lip (about 70-90% upper lip)
 - b. Slightly more upper lip than lower lip (about 50-70% upper lip)
 - c. Slightly more lower lip than upper lip (between 50-70% lower lip)
 - d. Significantly more lower lip than upper lip (between 70-90% lower lip)

III. Self-Observation Analysis Questions: Bends Exercise

Instructions: Choose the most accurate option, based on observing your video recording of the provided octaves exercise:

1. When I apply light downward pressure to the mouthpiece shank while sustaining a middle Bb, the pitch responds by:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer

2. When I apply light upward pressure to the mouthpiece shank while sustaining a middle Bb, the pitch responds by:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer

3. When I apply light downward and leftward pressure (diagonally toward left foot) to the mouthpiece shank while sustaining a middle Bb, the pitch responds by:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer

4. When I apply light downward and rightward pressure (diagonally toward right foot) to the mouthpiece shank while sustaining a middle Bb, the pitch responds by:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer

5. When I apply light upward and rightward pressure (diagonally toward right ear) to the mouthpiece shank while sustaining a middle Bb, the pitch responds by:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer

6. When I apply light upward and leftward pressure (diagonally toward left ear) to the mouthpiece shank while sustaining a middle Bb, the pitch responds by:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer

7. In which direction does the pitch most clearly raise while maintaining a clear and pleasant tone?
 - a. Up toward nose
 - b. Up Toward left ear
 - c. Up toward right ear
 - d. Down toward chin
 - e. Down toward left foot
 - f. Down toward right foot

8. In which direction does the pitch lower while maintaining the best clear and pleasant tone?
 - a. Up toward nose
 - b. Up Toward left ear
 - c. Up toward right ear
 - d. Down toward chin
 - e. Down toward left foot
 - f. Down toward right foot

IV. External Observation Analysis Questions

Instructions: Select the most applicable response based on observation of the following three example videos:

Bends Video 1 = Player 1

Bends Video 2 = Player 2

Bends Video 3 = Player 3

1. When example player 1 puts downward pressure on the mouthpiece shank, it results in:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer
2. When example player 1 puts upward pressure on the mouthpiece shank, it results in:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer
3. When example player B puts downward pressure on the mouthpiece shank, it results in:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer
4. When example player B puts upward pressure on the mouthpiece shank, it results in:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer
5. When example player C puts downward and left pressure (toward left foot) on the mouthpiece shank, it results in:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse
 - d. No change to pitch, but sound becomes clearer
6. When example player C puts upward and right pressure (toward right ear) on the mouthpiece shank, it results in:
 - a. increasing/raised pitch
 - b. Lowered pitch
 - c. No change to pitch, but sound becomes more diffuse

- d. No change to pitch, but sound becomes clearer

V. Comparative Analysis Octaves Questions

Instructions: Select the example videos that most closely resembles your own in the following aspects:

Octaves Video 1 = Player 1

Octaves Video 2 = Player 2

Octaves Video 3 = Player 3

1. My mouthpiece placement is most similar to:
 - a. Player 1
 - b. Player 2
 - c. Player 3

2. The movement direction of my mouthpiece when I ascend from middle Bb to high Bb is most similar to:
 - a. Player 1
 - b. Player 2
 - c. Player 3

3. The movement direction of my mouthpiece when I descend from middle Bb to low Bb is most similar to:
 - a. Player 1
 - b. Player 2
 - c. Player 3

VI. Secondary Confirmation Questions

For the purposes of this section, please answer the questions as they apply to your playing when using equipment of standard size. In other words, if your instrument or mouthpiece choice is specialized in order facilitate additional brilliance/depth, focus/breadth or comfort in a certain range, answer as if you were using more standard equipment.

For example, if a player has a broad, warm sound on a standard 5G mouthpiece and Bach 42/36, but chooses to play a Bach model 6 trombone with a specialized lead trombone mouthpiece to get a brighter and more focused sound, then that player should answer the following questions according to their natural tendencies, without the influence of the small/bright, specialized equipment.

The intent is to get a baseline of your natural tendencies.

Instructions: Choose the most accurate answer:

1. Do you naturally have above-average flexibility, which came relatively quickly? For example, perhaps achieving lip trills comes more easily to you than your peers.
 - a. Yes
 - b. No

2. You naturally tend to most easily achieve a
 - a. Broad, full, warm sound.
 - b. Focused, clear, and brilliant sound

3. Compared to your peers, you have an easier time achieving relaxed and consistent sound in the
 - a. low range
 - b. high range,

4. Do you often feel warmed up and ready to play well after only a short warmup, or do you usually require a more gradual warm-up to play well?
 - a. Feel warmed up and ready fairly quickly
 - b. Longer, gradual warm up to play your best

VII. Mis-type Identification Questions

Instructions: Choose the most applicable answer:

1. Do you have a useable high range above high C#/Db (above Bolero range), or do you have a range cap at around that note or below?
 - a. usable range above C#
 - b. high range is capped at or below C#,

2. In your recording of the provided octave exercise, examine your intonation. Choose one of the following:
 - a. You tend to play flat (or need to “lip up”) on the higher Bb and tend to play sharp (or need to “lip down”) the low Bb.
 - b. You play with similar intonation tendencies in all octaves (or possibly tend to play slightly sharp on the high Bb and slightly flat on the low Bb).

VIII. Supplementary Data Collection Survey Questions

This section does not impact the results of the assessment, but provides information that may help to improve and refine the questions over time.

1. While standing with good posture and your head/neck up to look straight ahead, bring your instrument to your face (without otherwise changing your posture) to play and sustain the middle Bb.
Your horn angle while playing the middle Bb is best described as:
 - a. close to horizontal, or only slightly below horizontal (0-10 degrees below horizontal)
 - b. angled 10-25 degrees below horizontal
 - c. angled more than 25 degrees below horizontal
2. These areas of my playing are my strengths:
 - a. High Range Control and Comfort (the tessitura beyond the F above the bass clef staff)
 - b. Low Range Control and Comfort (the tessitura below the Bb in the bass clef staff)
 - c. Rapid Flexibility
 - d. Short Interval Flexibility
 - e. Wide Interval Flexibility
 - f. Articulation Clarity and Consistency
 - g. Multiple Tonguing
 - h. Short Term Endurance (Ex. non-stop playing within one piece of music)
 - i. Long Term Endurance (Ex. a 5-hour recording session with short breaks between pieces)
3. What primary instrument make and model(s) do you use?
4. What primary mouthpiece brand and size(s) do you use?
5. What is the name(s) of your primary trombone teacher(s)?
6. What pedagogical texts concerning trombone, if any, have been recommended or utilized/referenced during your instruction by that teacher(s)?
7. How did your teacher(s) approach the instruction of embouchure technique to you (and possibly other students you witnessed)?
8. Did you find this Embouchure Type Self-Assessment to be presented logically and intuitively?
9. Do you have recommendations for how to improve this Self-Assessment?

IX. Scoring Protocol

Tallying the results

The results must now be tallied. The analysis questions from previous sections each assign points toward either a movement class, an embouchure type, or the confidence score.

All points are tallied at the end into the following categories:

- Movement Class 1
- Movement Class 2
- VHP Type (out of possible 13 points)
- MHP Type (out of possible 22 points)
- LP Type (out of possible 13 points)
- Confidence Score (out of possible 21 points)

The Embouchure Type result is indicated by whichever category (among VHP, MHP and LP) accumulates the highest points score. The following Table 1 shows provides a place to record each question's response and the details required to score each category.

Table 1.

Section	Q #	A	Instructions	Mvt 1	Mvt 2	VHP	MHP	LP	Confidence
II.	1.		A = Movement 1; B = Movement 2; C = 2pt MHP; D = -1pt confidence						
	2.		A = 2 pts VHP; B = 2 pts MHP; C = 2 pts LP						
	3.		A = Movement 2; B = Movement 1; C = 2pt MHP; D = -1 confidence						
	4.		A = Movement 1; B = Movement 2; C = 1pt MHP						
	5.		A= 2pts VHP; B = 2pts MHP; C= 1pt LP; D = 2 pts LP						
III.	1.		A = Movement 2, B = Movement 1						
	2.		A = Movement 1, B = Movement 2						
	3.		A = Movement 2, B = Movement 1						
	4.		A = Movement 2, B = Movement 1						
	5.		A = Movement 1, B = Movement 2						
	6.		A = Movement 1, B = Movement 2						
	7.		A, B, C = Movement 1; D, E, F = Movement 2						
	8.		[A, B, C = Movement 2; D, E, F = Movement 1]						
IV.	1.		B = +1 confidence; all others n/a						
	2.		A = +1 confidence; all others n/a						
	3.		B = +1 confidence; all others n/a						
	4.		A = +1 confidence; all others n/a						
	5.		A = +1 confidence; all others n/a						
	6.		B = +1 confidence; all others n/a						
V.	1.		A = 3 pts VHP; B = 3pts MHP; C = 3pts LP						
	2.		A = 3 pts VHP; B = 3pts MHP; C = 3pts LP						
	3.		A = 3 pts VHP; B = 3pts MHP; C = 3pts LP						
Sub-Totals:									

TROMBONE EMOUCHURE TYPE SELF-ASSESSMENT

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TMUS 8249 Pedagogy Practicum

Section	Q #	A	Instructions	Mvt 1	Mvt 2	VHP	MHP	LP	Confidence
VI.	1.		A = 1 pt. MHP; B = n/a						
	2.		A = 1 pt. MHP; B = 3pts each VHP and LP						
	3.		A = 1pt MHP. B = 1 pt. each to VHP & LP						
	4.		A = 1 pt. each to VHP & LP. B= 1 pt. MHP						
VII.	1.		A = probably playing with your most correct type. A = +1 confidence. B = probably NOT playing with the correct embouchure type. B = subtract 5 confidence points						
	2.		A = probably NOT using your correct placement and/or embouchure movement type. A = Subtract 5 confidence points. B= Probably using your correct placement and/or embouchure movement type. B = +1 confidence						

Totals:							
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If any one type category of VHP, MHP or LP has 10 points or more, add 5 confidence points.	
If both Movement Class 1 and VHP categories each have at least 9 points, add 5 confidence points.	
If the MHP category has at least 15 of possible 22 points, add 5 confidence points	
If Movement Class 2 and LP categories each have at least 9 points, add 5 confidence points.	

	Mvt 1	Mvt 2	VHP	MHP	LP	Confidence
Final Totals:						

Calculating the Confidence Score

The confidence score suggests how consistently the user responses correspond with the resulting embouchure type. It also indicates the overall consistency of the user's analysis. In addition to the Confidence points added or subtracted directly by responses to questions within the assessment, the following rules apply:

- If any one type category of VHP, MHP or LP has 10 points or more, add 5 confidence points.
- If both Movement Class 1 and VHP categories each have at least 9 points, add 5 confidence points.
- If the MHP category has at least 15 of possible 22 points, add 5 confidence points.
- If Movement Class 2 and LP categories each have at least 9 points, add 5 confidence points.

These rules are shown at the lower portion of Table 1, above.

Assessing the Accuracy of Results

Table 2 shows the relative confidence level associated with a given numerical confidence score.

Table 2

Confidence Score	Relative Confidence Level
15 or higher	shows strongly encouraging confidence
10 - 15	shows reasonable confidence, with some room for doubt.
10 or lower	suggests significant cause to doubt the accuracy of the assessment

A suboptimal confidence score may indicate inconsistencies among the user responses or that the user is likely not using the embouchure type most suited to their physiology. In rare cases, a low confidence score may also indicate that the user has an exceptional embouchure, which rests in between types or employs elements of multiple types. Assessing these possibilities correctly is unlikely in this format of an un-proctored self-assessment.

X. Results Pages: Information for the resulting embouchure type

The following pages offer information pertaining to each of the three embouchure types that you may have received as a result of this assessment. The descriptions and tables are borrowed from my accompanying dissertation study, *SELECTED PUBLISHED PEDAGOGICAL LITERATURE CONCERNING TROMBONE EMBOUCHURE: AN EVALUATION AND REFERENCE*, which will be published by University of Colorado Boulder in 2020.

The player lists were created through my observation of each player on the lists in order to classify their likely embouchure type. These lists are intended to provide examples for users of this assessment. It can sometimes be helpful to choose musical role models that share the same embouchure type when developing as a player.

Very High Placement Embouchure Type

The Very High Placement (VHP) embouchure type is identified by:

1. Downstream - “The performer’s mouthpiece placement utilizes more upper than lower lip,” causing the “upper lip to predominate into the cup of the mouthpiece during playing. Thus, the air stream will strike into the mouthpiece cup in a downward direction (toward the chin) at varying angles according to the register being played.”¹
2. Mouthpiece Placement is higher on the upper lip than the MHP, and utilizes more upper than lower lip inside the mouthpiece (as mentioned above). “These players place the mouthpiece with somewhere around 75% to 90% upper lip inside the mouthpiece, sometimes quite close to the nose with low brass musicians.”²
3. Embouchure Motion follows Reinhardt’s “Pivot Classification One.” “This is the performer who, while ascending, pushes their lips” and mouthpiece together “up to a slightly higher position on their teeth (toward the nose)... and while descending pulls their lips” and mouthpiece together “to a slightly lower position on their teeth (toward the chin).”³
4. Jaw/tooth position & Horn angle: While in playing position, most VHP players have their upper and lower teeth more or less aligned vertically, with some variation depending on the current tessitura. Within that variation, the player’s jaw should protrude slightly forward (and possibly upward) while ascending and recede slightly (in the opposite manner) while descending. “While catering to the Pivot jaw manipulation, some angular movement of the instrument may be observed,”⁴ but the base horn angle is most likely to be higher than that of an MHP player (often nearly horizontal, or just below horizontal). While in a natural resting position, a VHP player’s teeth are most likely to be either perfectly aligned

¹ Reinhardt, Donald S. *Encyclopedia of the Pivot System*. Original Unabridged Edition. New York, NY: Charles Colin Publications, 2000, 191.

² Wilken, David. “The Three Basic Embouchure Types – Wilktone.” Accessed October 20, 2020. <https://wilktone.com/?p=92>.

³ Reinhardt, *Encyclopedia of the Pivot System*, 199.

⁴ Reinhardt, *Encyclopedia of the Pivot System*, 199.

vertically (Reinhardt's type I⁵) or in a slight overbite formation (Reinhardt's type IIIA⁶, or rarely type III⁷).

In my 2020 study, *SELECTED PUBLISHED PEDAGOGICAL LITERATURE CONCERNING TROMBONE EMBOUCHURE: AN EVALUATION AND REFERENCE*, I found the texts within the following Table 3 to be suitable for Very High Placement players.

⁵ Reinhardt, *Encyclopedia of the Pivot System*, 204.

⁶ Reinhardt, *Encyclopedia of the Pivot System*, 208.

⁷ Reinhardt, *Encyclopedia of the Pivot System*, 207.

Table 3

<u>Source</u>	<u>Year</u>
<u>Bailey et al. - Teaching Brass: A Resource Manual</u>	<u>1992</u>
<u>Begel - A Modern Guide for Trombonists</u>	<u>2006</u>
<u>Burba - Brass Master Class</u>	<u>1997</u>
<u>Burtis - Time, Balance, & Connections</u>	<u>2009</u>
<u>Collwell/Hewitt - The Teaching of Instrumental Music</u>	<u>2011</u>
<u>Ervin - Rangebuilding on the Trombone</u>	<u>1989</u>
<u>Fink - The Trombonist's Handbook</u>	<u>1977</u>
<u>Hunt - Guide to Teaching Brass (5th ed.)</u>	<u>1968/1994</u>
<u>Johnson - Brass Performance & Pedagogy</u>	<u>2002</u>
<u>Kleinhammer/Yeo - Mastering the Trombone</u>	<u>2000/2011</u>
<u>Mendez - Prelude to Brass Playing</u>	<u>1961</u>
<u>Nelson/Jacobs - Also sprach Arnold Jacobs</u>	<u>2006</u>
<u>Reinhardt - Encyclopedia of the Pivot System</u>	<u>1973/2000</u>
<u>Reinhardt - Pivot System for Trombone</u>	<u>1942</u>
<u>Roznoy - Trombone - Low Brass Techniques and Pedagogy</u>	<u>1978</u>
<u>Sweeney - Teaching Techniques</u>	<u>1953</u>
<u>Whitener - A Complete Guide to Brass</u>	<u>1997</u>

Very High Placement Trombonists:

- Joseph Alessi - Principal Trombone at New York Philharmonic
- James Markey - tenor/bass trombone, Boston Symphony & former NY Philharmonic
- John Marcellus - Prof. emeritus at Eastman SOM, former NSO Principal Trombonist
- Ian Bousfield - former Principal Trombone at London Symphony & Vienna Philharmonic
- Toby Oft - Principal Trombone at Boston Symphony
- Charlie Vernon - bass trombone at Chicago Symphony
- David Finlayson - 2nd Trombone at New York Philharmonic
- Brad Edwards - Prof. of trombone at Arizona State
- Peter Steiner - trombonist, former Colorado Symphony & Vienna Philharmonic
- Mark L. Lusk - Prof. of trombone at Penn State
- William Stanley - Prof. of trombone at CU-Boulder
- Conrad Herwig - jazz/Latin trombonist, Prof. at Rutgers
- Bob McChesney - jazz/recording artist <http://www.wilktone.com/?p=1548>
- Bill Watrous - jazz trombonist
- Andy Martin - jazz trombonist
- Carl Fontana - jazz trombonist
- Frank Rosolino - jazz trombonist <https://youtu.be/RT5FrYz7RtI>
- Jack Teagarden - jazz trombonist
- Michael Dease - jazz trombonist, faculty at MSU
- Matt Niess - trombonist, retired Lead trombone with Army Blues/Pershing's Own & Capital Bones, now professor of trombone at Shenandoah University
- Wes Funderburk - jazz trombonist <http://www.wilktone.com/?p=724>
- Doug Elliott - trombonist/pedagogue
- Alistair White - jazz trombonist
- Marshall Gilkes - jazz trombonist, Maria Schneider Big Band & WDR Big Band
- Larry Zalkind - former Principal Trombone at Utah Symphony, Prof. at Eastman
- Denson Paul Pollard - Bass Trombone at Metropolitan Opera
<http://www.wilktone.com/?p=3827>
- Scott Hartman - former member of Empire Brass, Prof. of Trombone at Yale
- Massimo La Rosa - Principal Trombone at Cleveland Orchestra
- Csaba Wagner - bass trombone, Budapest Corpus Quartet
- Stefan Schulz - bass trombone, Berlin Philharmonic
- Zoltan Kiss - trombone, MNOZIL Brass
- James Nova - 2nd trombone, Pittsburgh Symphony Orchestra
- Achilles Liarmakopoulos - trombone, Canadian Brass
- Tom Riccobono - Instructor of Low Brass at Interlochen Arts Academy

Medium High Placement Embouchure Type

The Medium High Placement (MHP) embouchure type is identified by:

1. Downstream - “The performer’s mouthpiece placement utilizes more upper than lower lip,” causing the “upper lip to predominate into the cup of the mouthpiece during playing. Thus, the air stream will strike into the mouthpiece cup in a downward direction (toward the chin) at varying angles according to the register being played.”⁸
2. Mouthpiece Placement: “Like the Very High Placement type, these players place the mouthpiece so that there is more upper lip than lower lip inside the mouthpiece, but they tend to place a bit closer towards centered, just over 50% to about 75% upper lip inside the cup.”⁹
3. Embouchure Motion often follows Reinhardt’s “Pivot Classification Two,” with some exceptions. “This is the performer who, while ascending, pulls their lips” together with the mouthpiece “to a slightly lower position on their teeth (toward the chin)... and while descending pushes their lips” and mouthpiece together “to a slightly higher position on their teeth (toward the nose).”¹⁰ There may be some exceptions to this pivot classification, based on the results of Wilken’s study.¹¹ According to my conversations with Doug Elliott (and his interview with Wilken¹²), Elliott has found there are about four variations of players within MHP (as opposed to the two noted in Reinhardt’s encyclopedia – III and IIIB). But, the way all MHP players create compression (used to increase the vibration frequency and raise pitch) is unique and different to both VHP and LP (which function similarly to one another, but in the opposite vertical direction). The MHP creates

⁸ Reinhardt, *Encyclopedia of the Pivot System*, 191.

⁹ Wilken, *The Three Basic Embouchure Types – Wilktone*.

¹⁰ Reinhardt, *Encyclopedia of the Pivot System*, 200.

¹¹ Wilken, Dave. “The Correlation between Doug Elliott’s Embouchure Types and Playing and Selected Physical Characteristics among Trombonists.” Ball State University, 2000. <https://www-proquest-com.colorado.idm.oclc.org/docview/304582289>, 72.

¹² Wilken, “The Correlation between Doug Elliott’s Embouchure Types and Playing and Selected Physical Characteristics among Trombonists,” 108-109.

more of a lip pinching action that adjusts the forward/back motion of the lips while directing the air downward to varying degrees. When the player pulls down, that embouchure movement pulls the top lip down over the bottom lip. The player does not only tuck the bottom lip in while using a pinching action of the lips together, but they pull the top lip down and make it pinch against the bottom lip. It is the resulting pinching action (forward and backward) that actually creates higher notes.¹³ And the opposite, upward embouchure motion allows it to loosen and flap in a lower frequency.

4. Jaw/tooth position & Horn Angle: While in a natural resting position, a MHP player's teeth usually exhibit an overbite (Reinhardt's type IIIB, or III¹⁴), wherein the "lower teeth recede beneath the upper."¹⁵ A MHP player's jaw may move slightly forward and upward while ascending and recede in the opposite manner slightly while descending – or, at least the player may have this intention, in order to resist the extreme opposite of these movements. However, as an MHP descends into the lower register, some players may drop their jaw down and slightly forward, possibly raising the horn angle. Except in the case of this jaw drop, the jaw and embouchure movements tend to be less pronounced for most MHP than for VHP and LP. Still, as the mouthpiece moves up and down over the convex tooth structure during embouchure motion, the horn angle is likely to tilt downward slightly when ascending and tilt upward slightly when descending. Thus, "while catering to the Pivot jaw manipulation, some angular movement of the instrument may be observed"¹⁶, but the typical, basic horn angle will often be lower than that of a VHP player.

In my 2020 study, *SELECTED PUBLISHED PEDAGOGICAL LITERATURE CONCERNING TROMBONE EMBOUCHURE: AN EVALUATION AND REFERENCE*, I found the texts within the following Table 4 to be suitable for Medium High Placement players.

¹³ Wilken, "The Correlation between Doug Elliott's Embouchure Types and Playing and Selected Physical Characteristics among Trombonists," 109.

¹⁴ Reinhardt, *Encyclopedia of the Pivot System*, 209.

¹⁵ Reinhardt, *Encyclopedia of the Pivot System*, 207.

¹⁶ Reinhardt, *Encyclopedia of the Pivot System*, 200.

Table 4

<u>Source</u>	<u>Year</u>
<u>Bailey et al. - Teaching Brass: A Resource Manual</u>	<u>1992</u>
<u>Baker - The Buddy Baker Tenor Trombone Handbook</u>	<u>2001</u>
<u>Begel - A Modern Guide for Trombonists</u>	<u>2006</u>
<u>Burba - Brass Master Class</u>	<u>1997</u>
<u>Burtis - Time, Balance, & Connections</u>	<u>2009</u>
<u>Fink - The Trombonist's Handbook</u>	<u>1977</u>
<u>Griffiths - Low Brass Guide</u>	<u>1980</u>
<u>Hunt - Guide to Teaching Brass (5th ed.)</u>	<u>1968/1994</u>
<u>Johnson - Brass Performance & Pedagogy</u>	<u>2002</u>
<u>Kanda - Trombone Unlimited</u>	<u>2020</u>
<u>Kleinhammer - The Art of Trombone Playing</u>	<u>1963</u>
<u>Kleinhammer/Yeo - Mastering the Trombone</u>	<u>2000/2011</u>
<u>Knaub - Trombone Teaching Techniques</u>	<u>1964/1998</u>
<u>Mendez - Prelude to Brass Playing</u>	<u>1961</u>
<u>Nelson/Jacobs - Also sprach Arnold Jacobs</u>	<u>2006</u>
<u>Reinhardt - Encyclopedia of the Pivot System</u>	<u>1973/2000</u>
<u>Reinhardt - Pivot System for Trombone</u>	<u>1942</u>
<u>Roznoy - Trombone - Low Brass Techniques and Pedagogy</u>	<u>1978</u>
<u>Whitener - A Complete Guide to Brass</u>	<u>1997</u>
<u>Wick - Trombone Technique</u>	<u>1971/1996</u>

Very High Placement Trombonists:

- Christian Lindberg - trombone soloist
- Ralph Sauer - former LA Phil Principal trombonist
- Craig Mulcahy - principal trombone at National Symphony
- Jorgen Van Rijen - Royal Concertgebouw & LA Phil
- Michael Mulcahy - Chicago Symphony
- Megumi Kanda - principal trombone at Milwaukee Symphony
- John Lofton - bass trombonist at LA Phil
- Brian Hecht - bass trombonist at Atlanta Symphony
- Bill Reichenbach - bass trombone studio/recording artist
- Alex Iles - trombone studio/recording artist
- Michael Davis - trombone recording artist & with Rolling Stones
- Phil Wilson - jazz trombonist, <http://www.wilktone.com/?p=4153>
- Bob Havens - jazz trombonist, Lawrence Welk Show <http://www.wilktone.com/?p=3953>
- Bob Brookmeyer - jazz valve trombonist <https://youtu.be/hhc4y0B3UIQ?t=1m50s>
- Mark Davidson - Utah Symphony Principal Trombone
- Graeme Mutchler - Utah Symphony Bass Trombone
- Wycliffe Gordon - Jazz trombonist

Low Placement Embouchure Type

The Low Placement (LP) embouchure type is identified by:

1. Upstream - “The performer’s mouthpiece placement utilizes more lower than upper lip, when their lower lip predominates during playing. Consequently, their air stream strikes into the mouthpiece cup in an upward direction (toward the nose) again at varying angles according to the register.”¹⁷ This attribute is exactly opposite to the VHP and MHP embouchure types.
2. Mouthpiece Placement is lower on the lips than MHP. “These players place the mouthpiece so that there is more lower lip inside the cup, anywhere from just over 50% to around 90% lower lip inside.”¹⁸
3. Embouchure Motion follows Reinhardt’s “Pivot Classification Two.” “This is the performer who, while ascending, pulls their lips” together with the mouthpiece “to a slightly lower position on their teeth (toward the chin)... and while descending pushes their lips” and mouthpiece together “to a slightly higher position on their teeth (toward the nose).”¹⁹
4. Jaw/tooth position & Horn Angle: “There is more variation in horn angle with the Low Placement type than with the other types, but it’s more common to find these players aligning their teeth and playing with a horn angle close to straight out.”²⁰

In my 2020 study, *SELECTED PUBLISHED PEDAGOGICAL LITERATURE CONCERNING TROMBONE EMBOUCHURE: AN EVALUATION AND REFERENCE*, I found the texts within the following Table 5 to be suitable for Low Placement players.

¹⁷ Reinhardt, *Encyclopedia of the Pivot System*, 191.

¹⁸ Wilken, *The Three Basic Embouchure Types – Wilktone*.

¹⁹ Reinhardt, *Encyclopedia of the Pivot System*, 200.

²⁰ Wilken, *The Three Basic Embouchure Types – Wilktone*.

Table 5

Source	Year
Bailey et al. - Teaching Brass: A Resource Manual	1992
Begel - A Modern Guide for Trombonists	2006
Burba - Brass Master Class	1997
Burtis - Time, Balance, & Connections	2009
Ervin - Rangebuilding on the Trombone	1989
Fink - The Trombonist's Handbook	1977
Hunt - Guide to Teaching Brass (5th ed.)	1968/1994
Johnson - Brass Performance & Pedagogy	2002
Kleinhammer/Yeo - Mastering the Trombone	2000/2011
Mendez - Prelude to Brass Playing	1961
Moore/Neilson - The Brass Book	1964
Nelson/Jacobs - Also sprach Arnold Jacobs	2006
Reinhardt - Encyclopedia of the Pivot System	1973/2000
Reinhardt - Pivot System for Trombone	1942
Roznoy - Trombone - Low Brass Techniques and Pedagogy	1978

Very High Placement Trombonists:

- Dick Nash - Jazz trombonist, <http://www.wilktone.com/?p=1198>
- Rusty McKinney - Bass trombonist, former Utah Symphony, <http://www.wilktone.com/?p=4089>
- Ken Tompkins - Principal trombone, Detroit Symphony
- Kai Winding - jazz trombonist
- Dave Wilken - Jazz trombonist <https://youtu.be/xFHgOTG2i7I>
- Larry Wehe - trombonist, U.S. Navy & Army concert bands retired,
- Rob McConnell - jazz valve trombonist,
- Don Lusher - jazz trombonist
- J.P. Torres - Latin jazz trombonist,
- Steve Wiest - Jazz trombonist & University of Denver jazz faculty, <http://www.wilktone.com/?p=3676>
- Reggie Watkins - Jazz trombonist
- Bryan Gannon - Trombonist with U.S. Air Force Band

David Wilken's video, *The Upstream Brass Embouchure: A Brief Guide for Teachers and Players*²¹ is an extremely helpful resource for players and teachers interested in information about Low Placement embouchure type players.

²¹ Wilken, David. *Part 1 The Upstream Brass Embouchure*, 2008.
<https://www.youtube.com/watch?v=xFHgOTG2i7I&feature=youtu.be>.

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