

UNIVERSITY OF MIAMI

SETTING YOUR CLARINET STUDENTS UP FOR SUCCESS:  
A CLARINET FUNDAMENTALS GUIDE FOR BAND DIRECTORS

By

Lee Thomas Seidner

A DOCTORAL ESSAY

Submitted to the Faculty  
of the University of Miami  
in partial fulfillment of the requirements for  
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Setting Your Clarinet Students Up for Success:  
A Clarinet Fundamentals Guide for Band Directors

Abstract of a doctoral essay at the University of Miami

Doctoral essay supervised by Dr. Margaret Donaghue Flavin  
No. of pages in text. (112)

The purpose of this study was to identify the specific fundamental skills of clarinet playing that need the most support in middle and high school clarinet students as well as which fundamental skills middle and high school band directors do not feel comfortable teaching their students. To identify these skills, middle and high school band directors were surveyed to assess the skills of their clarinet students, self-assess their own personal knowledge of clarinet fundamentals, their comfort level in teaching various clarinet fundamentals, as well as the band directors' previous instruction in addition to instruction they have sought out concerning clarinet fundamentals.

The first part of this essay discusses the need for the study, a review of literature, the method of the study, the results of the study, and the summary/conclusions section which includes potential options for further research and elaboration of this project. The second part of this essay is the fundamentals resource guide for band directors. The fundamental skills that were

selected to be included in this guide are: Embouchure, Altissimo/Voicing, Articulation, Hand Position/Technique, and Intonation. Each chapter includes the researcher's teaching approaches, exercises for student development, a compendium of other sources to reference to build on these fundamental skills, and links to instructional videos created by the researcher for students to view.

## **ACKNOWLEDGEMENTS**

A very special thank you to my unbelievably loving family. Mom, Dad, Steve, and Lauren, your constant support has helped to keep me grounded and your belief in me has enabled me to push past obstacles I believed to be immovable. Thank you for always being present, empathetic, and patient. I have absolutely no idea how this journey would have turned out without you.

To my committee, I cannot thank you enough for the time and energy you shared with me on this project. You have all been wonderful mentors throughout my time in Miami and I feel extremely fortunate to have been exposed to such wonderful pedagogues and role models.

To Dr. Donaghue, never in my wildest dreams could I have conceived that the boy who showed up to audition in Miami wearing a wool sweater would end up at this point. Your unwavering support and belief in me has raised me up to be a musician that I never thought possible, but one you always knew was there. You have taught me not only how to be better musician but to be a better educator, mentor, and human.

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## CHAPTER ONE

### Introduction

In today's world, the demands on current middle and high school students is arguably at an all time high. In order to get into top colleges and universities, students must be high-achievers in multiple activities all while receiving high academic marks. This often means students who are involved in music simply don't have the time available in their<sup>1</sup> lives to have private music lessons. Additionally, families may not have the finances to afford private lessons for their children. As a result, many students involved with music are only receiving music instruction in the band room from the band director. Now more than ever, band directors must have an expansive knowledge of every instrument in order to best support their students.

As with many public school K-12 teachers, band directors are often spread very thin in their role and in the expected responsibilities of the job. In fact, band directors experience additional health issues that reduce their quality of life as a result of their occupation.<sup>2</sup> Although band directors have likely studied every instrument while completing a music education degree, the training on each

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<sup>1</sup> In this essay, gender-neutral pronouns, "they/them/their" will be used when referring to any person or group of people not addressed by name.

<sup>2</sup> Danielle N. Woolery and Jesse A. Woolery, "Health Risks Faced by Public School Band Directors," Marry Ellen Cavitt, ed., *Texas Music Education Research*, (2013), <https://files.eric.ed.gov/fulltext/EJ1102332.pdf> (accessed March 15, 2019).

instrument must be very brief in order to complete their studies in a timely manner. This often results in a learning process that is rushed and far from thorough. As a result, many music educators enter their first year of teaching without all the knowledge they need to fully assist all of their students.

As a portion of my teaching assistantship, I often go into public middle and high schools to work with the clarinet students. When working with the students, it became quite apparent that most of the clarinet students lack a strong foundation in fundamentals which would enable them to find greater success on the instrument. With these personal teaching experiences in mind, I want to help by creating a resource that directors and students alike can utilize and not be left in the dark when it comes to learning the fundamental skills needed to play the clarinet. If band directors are potentially the only source of music education for some students, I want to help ensure they are equipped to support their clarinet students in the best ways possible.

There are many skill sets that are important to develop in order to properly play the clarinet, far too many for one paper to sufficiently explore. In order to determine which skills to address in this document, I went directly to the source. I surveyed band directors to determine which skills they feel their clarinet students need the most assistance with as well as which fundamental clarinet skills they feel the least comfortable teaching. Based on the feedback I received, I wrote the following guide on various clarinet fundamental skills, with band directors in mind as the target audience. Of course, I want this information equally accessible to their students. To best reach the student demographic, I have created

representative videos for each chapter, that discuss the content of each fundamental skill in addition to demonstrating the exercises provided in each chapter. The students will be able to access and view these videos on YouTube.



## CHAPTER TWO

### Literature Review

It is extremely surprising to find that most educational writings about the clarinet are aimed towards other clarinet players, not band directors. This can be seen in Jana Starling's doctoral essay, *Comprehensive Musicianship: A Clarinet Method Book Curriculum and Sample Units*. In this doctoral essay, Starling creates an entire curriculum sequence for the developing clarinetist. The target audience in this dissertation is fairly wide and serves as an evaluation of what concepts are utilized in developing clarinet students with an emphasis on incorporating comprehensive musicianship into this curriculum; intertwining concepts of music theory, music history, musical aesthetic, and performance within the music learning process.<sup>3</sup> Although indisputably an important curriculum to be considered, a new curriculum for instrumental music education does not directly assist band directors in improving the skill set of clarinet students in their music program. In the doctoral essay, *A Reference Guide to Beginning Clarinet Methods*, author Cindy Renander objectively discusses the content of various method books for beginning clarinet players as well as compares the differences between them.<sup>4</sup> This can be very helpful in assisting a music educator in deciding

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<sup>3</sup> Jana Starling, "Comprehensive Musicianship: A Clarinet Method Book Curriculum and Sample Units" (Doctoral Essay, Arizona State University, 2005), 1-4.

<sup>4</sup> Cindy Renander, "A Reference Guide to Beginning Clarinet Methods" (Doctoral Essay, Florida State University, 2008), 1.

which resource may be best suited for the beginning clarinet student but does not stretch to include the intermediate or advanced middle school and high school band students, nor does it provide techniques to effectively teach fundamental skills on the clarinet. A doctoral essay that relates more directly to wind band music is Shannon McKinney's *Wind Band Music for Clarinet: An Excerpt Guide*, in which McKinney surveyed prominent collegiate band directors to find the most challenging wind band excerpts for clarinet.<sup>5</sup> Although there is a closer relation to wind bands in this topic, the essay creates a wind band excerpt guide, making the target audience other clarinet players.

Research that references band directors or has band directors as a target audience is frequently very narrow in the topic being addressed. For example, in her dissertation, *The Effects of Clarinet Embouchure on Band Director Tone Quality Preferences*, Loraine Davis Enloe studied the effect that two different types of clarinet embouchures had on the timbre of the sound and the resulting preference band directors had for each.<sup>6</sup> This does not assist band directors in teaching their clarinet students. It only identifies their tone preference based on two styles of embouchure formation. Brian C. Wuttke discusses the bigger picture of intonation across an entire band through an analysis of equipment quality and the perceptions of both students and band directors in his dissertation, *A Model Describing the Effects of Equipment, Instruction and*

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<sup>5</sup> Shannon L. McKinney, "Wind Band Music for Clarinet: An Excerpt Guide" (Doctoral Essay, University of Miami, 2014), 2-3.

<sup>6</sup> Loraine Davis Enloe, "The Effects of Clarinet Embouchure on Band Director Tone Quality Preference" (Dissertation, The University of North Carolina at Greensboro, 2007), 1-10.

*Director and Student Attributes on Wind-Band Intonation*.<sup>7</sup> Although this dissertation provides a lot of insight as to how the director can support their students in developing intonation in general, it does not provide band directors with any direct information on how to best support their wind students in developing fundamental skills. *Correcting Technical Deficiencies in High School Clarinet Sections: A Resource for Band Directors* by Danielle Woolery, surveys band directors across the state of Florida and provides information about fundamental skills on clarinet. However, the ultimate aim of this doctoral essay is to help band directors utilize this information and apply it to specific pieces of wind band literature that were selected based on the information received from the survey results, not provide a fundamentals guide to assist directors with their teaching.<sup>8</sup>

Jane Forvilly attempts to assist instrumental teachers (band directors) in her thesis, *A Manual of Clarinet Techniques Supplementary to the Basic Necessary Skills*. However, this thesis is all-encompassing and very broad, attempting to cover multiple topics including history of the clarinet, information and care of reeds, choosing a clarinet for students, clarinet repair, mouthpiece anatomy, breath support, embouchure, etc.<sup>9</sup> Forvilly's thesis clearly serves as a great reference for anyone seeking information about the clarinet but it is not a thesis that answers the specific concerns of band directors.

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<sup>7</sup> Brian C. Wuttke, "A Model Describing the Effects of Equipment, Instruction and Director and Student Attributes on Wind-Band Intonation" (Dissertation, University of Miami, 2011), 1-13.

<sup>8</sup> Danielle Woolery, "Correcting Technical Deficiencies in High School Clarinet Sections: A Resource for Band Directors" (Doctoral Essay, University of Miami, 2011), 1-4.

<sup>9</sup> Jane Roene Forvilly, "Manual of Clarinet Techniques Supplementary to the Basic Necessary Skills" (Master's Thesis, Montana State University, 1954).

Another text that includes information about clarinet fundamentals is Frederick W. Westphal's *Guide to Teaching Woodwinds*. This text is considered a standard for music education students in gaining a comprehensive understanding of woodwind instruments. The chapter on clarinet is extremely informational and thorough. It includes information on the history on the instrument, how to select students to play clarinet, clarinet assembly, embouchure formation, hand placement, articulation, technique, intonation, instrument selection, instrument care, standard solo repertoire, and auxiliary instruments (Eb, A, alto, bass, and contrabass clarinets).<sup>10</sup> As thorough as this text is, it is also extremely overwhelming. For band directors to find the information they need, they have to search through a great deal of text. This applies to both within the book itself, as it has detailed information about every woodwind instrument, as well as within the section dedicated specifically to clarinet. This text also serves as a general guide and is not catered to the specific deficiencies that band directors will be self-assessing.

Due to this essay's specific focus on clarinet fundamentals, band method books were not included in the literature review.

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<sup>10</sup> Frederick W. Westphal, *Guide to Teaching Woodwinds*, 5<sup>th</sup> ed. (Sacramento: McGraw Hill, 1990), 52-117.

## **CHAPTER THREE**

### **Method**

#### *Overview*

The purpose of this study is to identify the specific fundamental skills of clarinet playing that need the most support in middle and high school clarinet students as well as which fundamental skills middle and high school band directors do not feel comfortable teaching their students. To identify these skills, middle and high school band directors were surveyed to assess the skills of their clarinet students, self-assess their own personal knowledge of clarinet fundamentals, their comfort level in teaching various clarinet fundamentals, as well as the band directors' previous instruction in addition to instruction they have sought out concerning clarinet fundamentals. The research questions guiding this study include:

1. Which fundamental skills of middle and high school clarinet students need the most support?
2. Do middle and high school band directors feel they are equipped to support their clarinet students in developing the fundamental skills needed to succeed in playing the instrument?
3. Which fundamental clarinet skills do middle and high school band directors feel uncomfortable with?

4. Are middle and high school band directors seeking resources to be better equipped in teaching their clarinet students?
5. Task: using the answers from (1), (2), (3), and (4), a guide on clarinet fundamentals will be created with band directors, specifically those without a clarinet performance background, serving as the target audience.

### *Participants*

The participants for this study were middle and high school band directors who are members of the Florida Bandmasters Association (**N** = 94). All teachers were contacted via email by the Executive Director of Florida Bandmasters Association, Neil Jenkins, with an invitation for participation in the survey that had the consent letter attached.

The average years of experience within the responding applicants was 15.08 years. The primary instrument of the respondents varied and included wind, percussion, and string instruments.

### *Instrumentation*

A survey was designed by the researcher with the research questions in mind. The survey was created using SurveyMonkey, a web-based survey site. The survey created did not ask any identifying questions and the responses were kept anonymous.

### *Data Collection Procedures*

The researcher designed the survey, *Band Director Knowledge of Clarinet Fundamentals*. Questions for the survey were created based on the researcher's and principal investigator's knowledge of the clarinet, fundamental skills necessary to be successful when learning the clarinet, as well as personal experiences in middle and high school band rooms leading clarinet sectionals.

The researcher sent a pilot survey to colleagues which included both former and current band directors as well as other clarinet players to ensure that the survey was clear and concise in its language in addition to verifying that completing the survey did not take too much time. The completed survey was sent via email to Neil Jenkins, the Executive Director of FBA, to forward to the association members. The email included a consent letter which contained a link to the survey. The researcher used SurveyMonkey to create the survey as it allowed for the survey results to remain completely anonymous. All anonymity settings were on so that the survey creator was the only individual to receive the results of each survey and that no other personal information of the participants was received.

Based on the feedback received from the survey, specific topics of clarinet fundamentals were selected to be discussed in each chapter. This allows the paper to be as specific as possible in addition to focusing on topics that the band directors who completed the survey felt the highest need for guidance and support.

Within each chapter, the reader will find the fundamental skill discussed in the chapter followed by the researcher's personal teaching techniques and tips on the skill. Additionally, each chapter is accompanied by excerpts of exercises to assist their students, a compendium of other resources which include suggested method or text books to reference, as well as links to instructional videos created by the researcher that students are able to reference on YouTube. The goal is not only to provide direct information that instrumental instructors feel they need, but to also provide outlets for further exploration as well as to make the information directly accessible to the students. This guide can be found in Part II of this essay.



## CHAPTER FOUR

### Results

The purpose of this study was to identify which specific fundamental skills of clarinet playing need the most support in middle and high school clarinet students, as well as which fundamental skills middle and high school band directors feel least comfortable teaching his or her students. In order to determine results, the Band Director Knowledge of Clarinet Fundamentals survey was administered to high school and middle school band directors who are members of the Florida Bandmasters Association (**N** = 94). The results of the survey will be detailed in this chapter to answer the following research questions:

#### *Research Questions*

1. Which fundamental skills of middle and high school clarinet students need the most support?
2. Do middle and high school band directors feel they are equipped to support their clarinet students in developing the fundamental skills needed to succeed in playing the instrument?
3. Which fundamental clarinet skills do middle and high school band directors feel uncomfortable with?

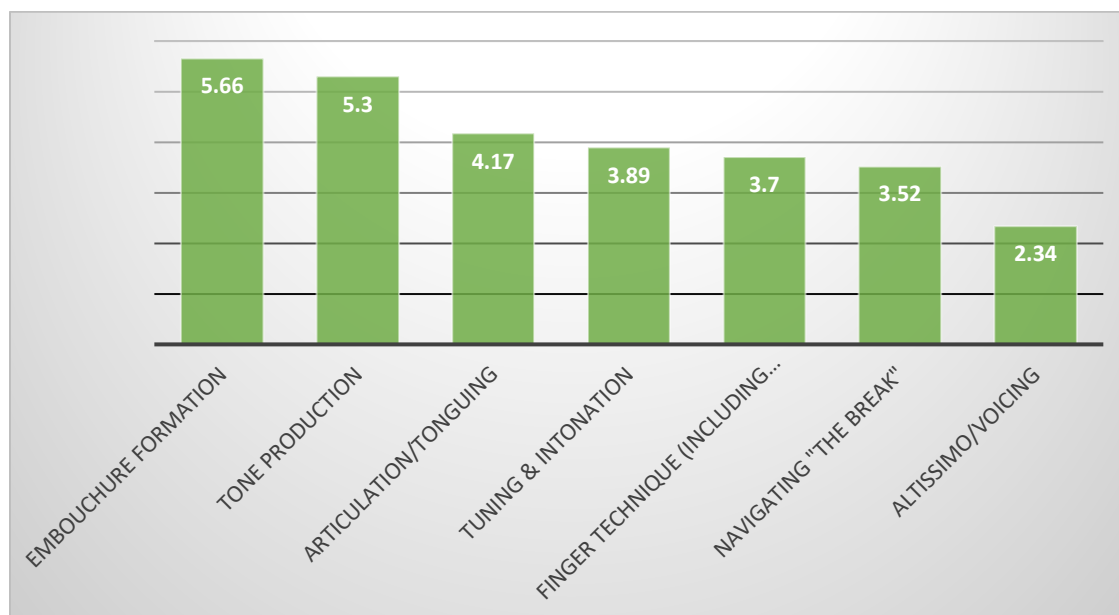
4. Are middle and high school band directors seeking resources to be better equipped in teaching their clarinet students?
5. Task: using the answers from (1), (2), (3), and (4), a guide on clarinet fundamentals will be created with band directors, specifically those without a clarinet performance background, serving as the target audience.

#### *Research Question One*

*Which fundamental skills of middle and high school clarinet students need the most support?*

In order to answer this question while remaining consistent in only receiving feedback from band directors themselves, the researcher requested the directors to share their perspective through the assessment question, *“Rank the ability of your clarinet students on the following set of skills with 1 representing the strongest and 7 representing the weakest.”* Responses to this question with the average answer of 1-7 for each skill can be seen in Figure 4.1.

Figure 4.1. Band Director Ranking of Clarinet Student Fundamental Skills (1-7 ranking scale)



Based on the results seen in Figure 4.1, embouchure formation and tone production are seen as extremely high concerns for the clarinet students with a fairly even result for articulation/tonguing, navigating “the break,” finger technique, and tuning and intonation. The lowest number and thus highest ranking skill set is seen in altissimo/voicing.

To further investigate the skill set of the middle and high school clarinet students, the researcher requested information from the band directors with the open-ended response question, “*What do you feel are the biggest challenges that your clarinet students face?*” Many directors responded with multiple answers. The most frequent answers of the responses received were variations on “Tone Quality/Production” and “Hand Position/Technique” both receiving 18

responses of the 91 total submitted (3 directors surveyed did not answer this question). The results of the analysis of the responses to this question are found in Table 4.1.

Table 4.1. The Biggest Challenges Faced by Middle and High School Clarinet Students as Determined by the Band Directors

	Frequency	Percent
<i>Tone</i>	18	14.88%
<i>Quality/Production</i>		
<i>Hand Position/</i>	18	14.88%
<i>Technique/ Alternate</i>		
<i>Fingerings</i>		
<i>Lack of Resources</i>	17	14.05%
<i>(Time, Equipment,</i>		
<i>Classroom Support)</i>		
<i>“The Break”</i>	16	13.22%
<i>Articulation</i>	14	11.57%
<i>Altissimo/Voicing</i>	14	11.57%
<i>Embouchure</i>	12	9.92%
<i>Reeds</i>	7	5.79%

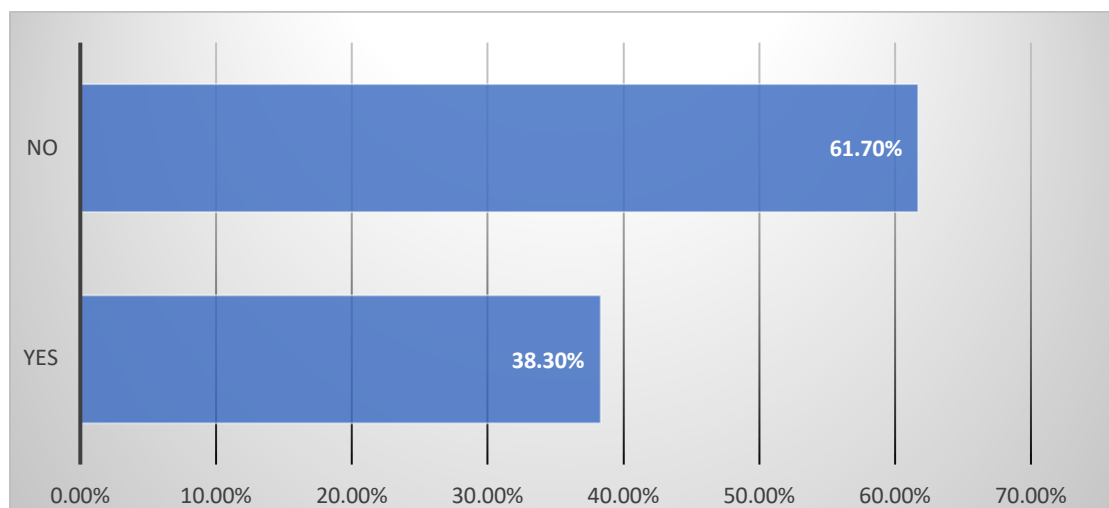
<i>Other (Discipline, laziness, air)</i>	5	4.13%
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### *Research Question Two*

*Do middle and high school band directors feel they are equipped to support their clarinet students in developing the fundamental skills needed to succeed in playing the instrument?*

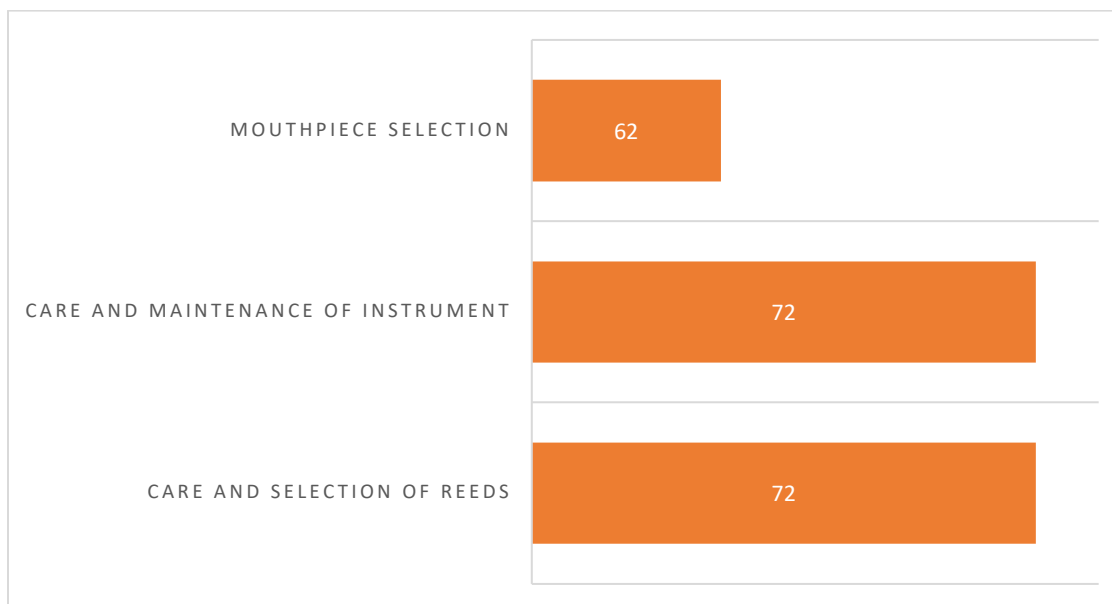
In order to best evaluate the comfort level of Florida band directors in the ability to support their clarinet students, the researcher asked a series of questions to determine how the directors felt about their training, and of the level of preparation this training provided in the skills needed to support their clarinet students. First the researcher requested, *“Do you feel that your undergraduate degree adequately prepared you to successfully guide and instruct your clarinet players in the fundamental skills listed above [embouchure formation, tone production, the break, altissimo/voicing, articulation/tonguing, hand position, finger technique, alternate fingerings, intonation (natural tendencies), tuning (adjustment of instrument), reeds, equipment (mouthpieces, ligatures, barrels, bells)]?”* Every band director who completed the survey answered this question with 58 of the 94 directors answering no. The results of this survey question can be found below in Figure 4.2.

Figure 4.2. Do Band Directors' Feel Their Undergraduate Degree Adequately Prepared Them to Guide Their Clarinet Students with Fundamental Skills?



The researcher asked the band directors to answer a series of self-assessing questions to determine their comfort level in specific skills that would allow them to best support their clarinet students including the selection and care of reeds, instrument selection and maintenance, and mouthpiece selection. The participants were able to choose a number from zero to 100 to describe their comfort level with an answer between zero to 32 representing *Not at all comfortable*, 33 to 66 representing *Comfortable*, and 67-100 representing *Extremely comfortable*. The results to these questions can be found in Figure 4.3.

Figure 4.3. Band Director Comfort Level in Mouthpiece Selection, Instrument Care & Maintenance, and Reeds (0 – 100 scale)



The final question made by the researcher in order to assess if middle and high school band directors feel they are equipped to support their clarinet students was the free response question, *“What resources do you currently know of that could assist your students who play clarinet? This may include texts, method books, and/or online resources.”* This question was intended to determine if band directors were knowledgeable of appropriate sources available to assist their clarinet students outside of the band literature being played in class. Out of the 94 participants, only 74 answered this question, there were however many participants who wrote multiple answers. The results were varied but the most frequent answers were “Local instructors and/or friends” and “Google/Internet.” The results to this survey question can be seen in Table 4.2 below.

Table 4.2. Resources Band Directors Currently Know of to Support the Development of Their Clarinet Students

	<b><i>Frequency</i></b>	<b><i>Percent</i></b>
<i>Internet/Google</i>	25	19.53%
<i>Local Instructors/Friends</i>	21	16.41%
<i>Clarinet Method Book by Rubank</i>	15	11.72%
<i>Rose Etudes</i>	11	8.59%
<i>Klose Method Book</i>	9	7.03%
<i>Band Method Books (Essential Elements, Accent on Achievement, Standards of Excellence, Tradition of Excellence)</i>	8	6.25%
<i>"Method Books"</i>	6	4.67%
<i>Self</i>	4	3.13%
<i>Tuning for Wind Instruments by Shelley Jagow</i>	3	2.34%
<i>Smart Music</i>	2	1.56%
<i>Albert Scale Studies</i>	2	1.56%
<i>The Instrumentalist</i>	2	1.56%
<i>Art of Clarinet Playing by Keith Stein</i>	1	0.78%
<i>C. Baerman Clarinet Method</i>	1	0.78%
<i>Clarinet Warm-Ups by Kelly Burke</i>	1	0.78%
<i>The Clarinet by Eric Hoeprich</i>	1	0.78%
<i>Clarinet Secrets by Michelle Gingras</i>	1	0.78%
<i>Student Mentors</i>	1	0.78%



<i>Clarinet Method Book by Avrahm Galper</i>	1	0.78%
<i>The Complete Woodwind Instructor by Deborah Sheldon</i>	1	0.78%
<i>The Woodwinds: Perform, Understand, Teach by James Byo</i>	1	0.78%
<i>Clarinet Studies by Fritz Kroepsch</i>	1	0.78%
<i>Practical Study of Scales for Clarinet by Alexandre Stievenard</i>	1	0.78%
<i>Clarinet Fingerings by Thomas Ridenour</i>	1	0.78%
<i>Clarinet Method by H. Lazarus</i>	1	0.78%
<i>The Modern Conductor by Elizabeth Green</i>	1	0.78%
<i>Selected Duets for Clarinet by H. Voxman</i>	1	0.78%
<i>U.S. Army Field Band Digital Resources</i>	1	0.78%
<i>Habits of Musicianship – University of Texas at Austin</i>	1	0.78%
<i>Habits of Successful Middle School Band Directors by Scott Rush, Jeff Scott, and Emily Wilkinson</i>	1	0.78%
<i>None</i>	2	1.56%

### *Research Question Three*

*Which fundamental clarinet skills do middle and high school band directors feel uncomfortable with?*

To answer this research question, the participating band directors were asked to, *“Please rate the comfort level you have in addressing and teaching the following clarinet techniques with your students.”* The areas listed were “Embouchure Formation,” “Tone Production,” “The Break,” “Altissimo/Voicing,” “Articulation/Tonguing,” “Hand Position,” “Finger Technique,” “Alternate Fingerings,” “Intonation (Natural Tendencies),” “Tuning (Instrument Adjustment),” “Reeds,” and “Equipment (Mouthpieces, Ligatures, Barrels, Bells).” The participating directors were asked to use a Likert scale consisting of “Not at All Comfortable,” “Not Very Comfortable,” “Somewhat Comfortable,” “Very Comfortable,” or “Extremely Comfortable.” They were asked to answer these twice, the first in relation to their comfort level during their first year of teaching and the second time was in relation to their current comfort level. The results for both survey questions can be found below in Figure 4.4 and Figure 4.5.

Figure 4.4 Band Director Comfort Level Teaching Clarinet Fundamental Skills  
During First Year of Teaching (1-5 Likert Scale)

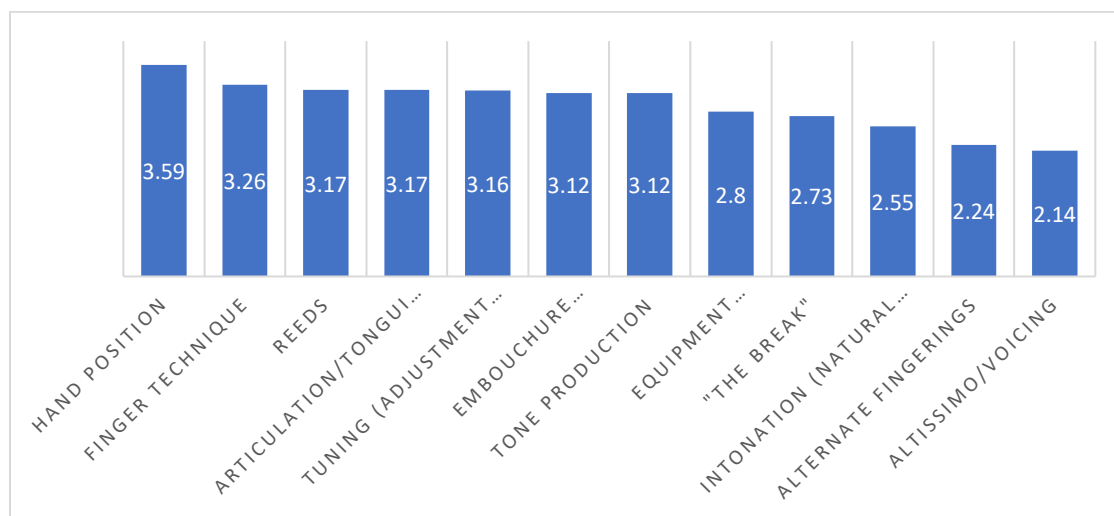
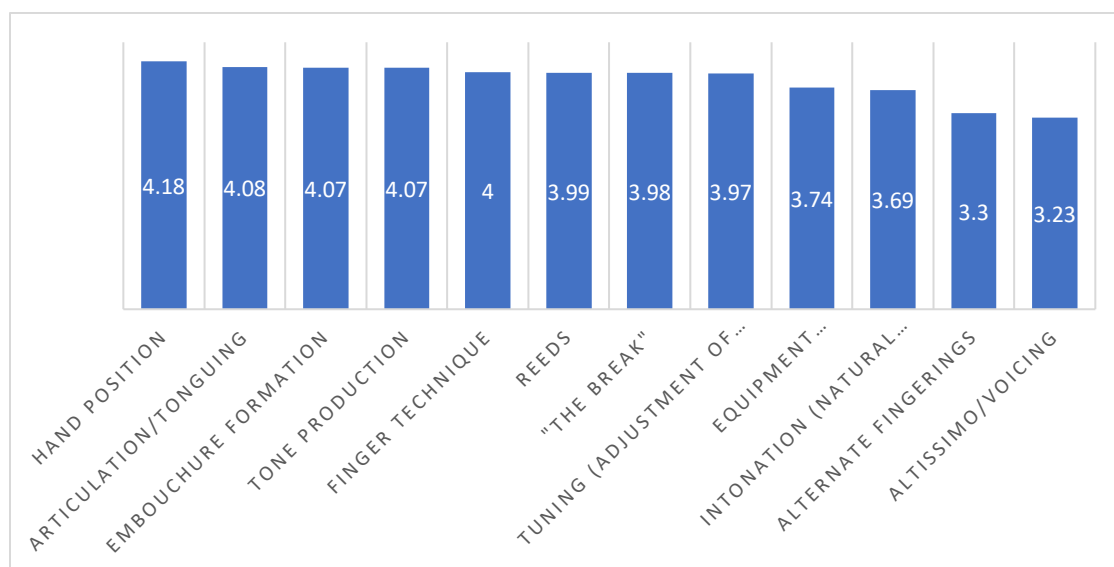


Figure 4.5. Band Director Comfort Level Teaching Clarinet Fundamental Skills  
Currently (1-5 Likert Scale)

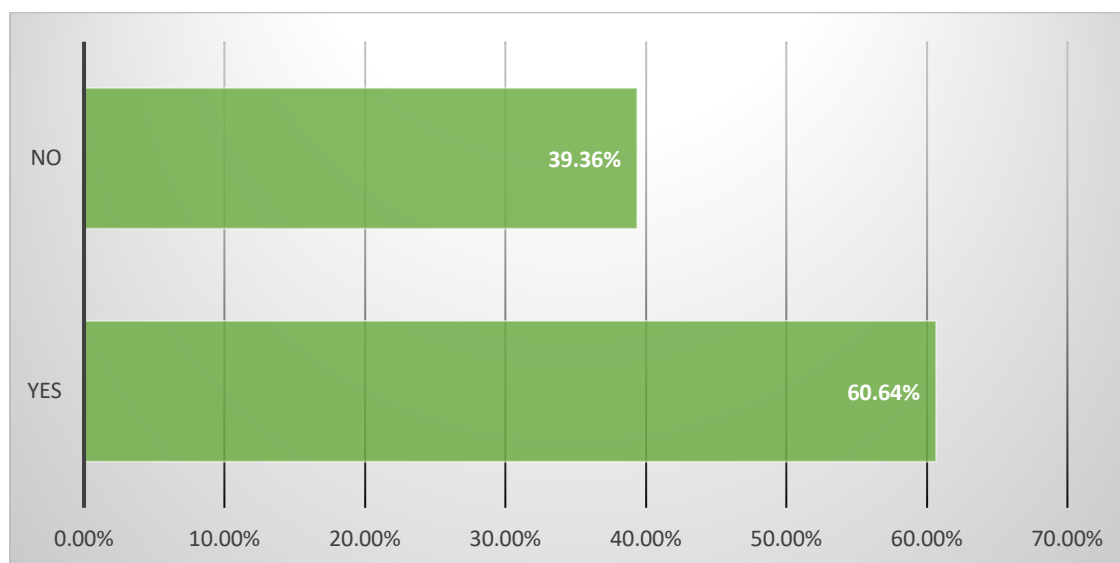


#### *Research Question Four*

*Are middle and high school band directors seeking resources to be better equipped in teaching their clarinet students?*

To best answer this research question, the directors were requested to answer the question, *“Have you taken any academic or professional development courses that have increased your knowledge about any of the clarinet fundamentals listed above since beginning your career as a band director?”* by selecting either yes or no. All of the respondents answered this question with 57 responses saying yes, they have taken extra academic or professional development courses for clarinet fundamentals while 37 respondents said they had not. This indicates that most band directors are looking for more information and there is an audience looking for extra support. The results of this survey question can be found below in Figure 4.6.

Figure 4.6. Have Band Directors in Florida Sought Out Academic or Professional Development Courses to Improve Their Abilities to Teach Clarinet Fundamentals?



#### *Research Question Five*

*Task: using the answers from (1), (2), (3), and (4), a guide on clarinet fundamentals will be created with band directors, without a clarinet performance background, serving as the target audience.*

Upon looking at the above results from the survey, the researcher determined the most pertinent clarinet fundamental topics to include in a resource guide for the band directors. The topics selected to include in the guide are: Embouchure, Altissimo/Voicing, Articulation, Hand Position and Technique, and Intonation.

## **CHAPTER FIVE**

### **Summary and Conclusion**

The purpose of this study was to identify which specific fundamental skills of clarinet playing need the most support in middle and high school clarinet students, as well as which fundamental skills middle and high school band directors feel least comfortable teaching his or her students. In order to accomplish this, middle and high school band directors were surveyed to self-assess their comfort level in teaching clarinet fundamentals, knowledge of available resources, and to reflect on how prepared they felt entering their first year of teaching.

Participants of the study (**N** = 94) were middle and high school band directors who are members of the Florida Bandmasters Association. The directors were surveyed to self-assess their comfort level in supporting their clarinet students in fundamental skills, in addition to their knowledge of resources available to them to best support their clarinet students. The survey included free response questions, multiple choice questions, and Likert-scale items.

The average number of years that these directors have been active music educators is 15.08. The standard deviation was 11.85 and was spread between one and 41 years. The grade level taught by the participating directors included

30.85% high school band directors, 46.81% middle school band directors, and 22.34% directors that teach both middle and high school.

The results of the Likert-scale questions in the survey indicated that band directors consistently feel the least comfortable supporting their clarinet students with, “Altissimo/Voicing,” “Alternate Fingerings,” and “Intonation (Natural Tendencies).” These three fundamental skills were the answers the survey indicates as being the least comfortable both in directors’ first year of teaching as well as in their current teaching. Although these topics did come up in the answers to the free response questions, they were not necessarily the most frequently occurring response. The free response question about the concerns of their clarinet players showed that the directors were most concerned with the tone quality/production of their clarinet students along with their students’ technique/hand position.

The free response question asking the directors to describe the biggest challenges faced by their clarinet students made evident that the directors feel there is a lack of resources available to them. The survey also revealed that most of the directors, 60.64% of the survey participants, have taken an academic or professional development course to increase their knowledge of clarinet fundamentals. This provides evidence that band directors are actively looking for support in these skills, and would benefit from a resource being readily available to them.

When answering the Likert-scale questions, the surveyed band directors felt most comfortable with “Hand Position.” This response is particularly

interesting as “Hand Position,” was tied for the most frequent answer (with Tone Quality/Production) in the free response question asking the directors to identify the biggest challenges faced by their clarinet students.

Although surveyed band directors answered with a fairly high comfort level when referring to teaching “Embouchure,” the responses were lower when reflecting on their comfort level during their first year of teaching which is troubling as the embouchure is the most fundamental skill set required for the success of developing clarinet players. Additionally, “Articulation” did not rank highly in the band directors’ self-assessment of their comfort level despite also being a fundamental skill that should also be undeniably high in the directors’ comfort level.

Having the directors’ reflect on their comfort level at various points in their careers did display the overall comfort level being higher currently when teaching the fundamental skills listed above than they did in their first year of teaching. This could provide some insight on the training music education majors receive during their undergraduate careers in addition to the confidence that directors may gain over time.

When asked to rank their comfort level in specific facets of clarinet playing on a sliding scale consisting of zero – 32 representing not very comfortable, 33 – 66 representing comfortable, and 67 – 100 representing extremely comfortable, the surveyed band directors overall answered that they felt *extremely comfortable*, with an average score of 72, in selection and care of reeds as well as instrument selection and maintenance. The surveyed directors responded with



feeling *comfortable* in selecting an appropriate mouthpiece for their students with an average score of 62. These scores overall are quite promising to think that band directors feel this comfortable supporting their students with equipment selection. However, based on my own personal experiences in middle and high school band rooms, I am not quite sure these scores match what I observe, and directors may perceive that they are more knowledgeable in this area than they actually may be.

When asked to *“Rank the ability of your clarinet students on the following set of skills with 1 representing the strongest and 7 representing the weakest,”* the skill with the highest ranking, and thus lowest ability of their students, was “Embouchure Formation,” with “Tone Production” being the second highest ranking response. The lowest ranking, and thus highest perceivable ability of their students, was “Altissimo/Voicing” with the second lowest skill being “Navigating ‘The Break.’” The results of this question seemed to oppose the directors’ self-assessed comfort level on these skills in the Likert-scale questions answered earlier in the survey. This could signify that the directors feel that despite their own comfort level with teaching these skills, their students still have a lot of room for development in these skill sets. There is also a possibility that with a majority of the responding directors being middle school directors, many of them don’t have students playing in the altissimo register yet, and thus it is not a problem they are encountering. The results of this question could also indicate confusion in the directors answering this question and perhaps answering in the reverse way than the researcher intended.

Lastly, when asked, *“Are there any other concerns in reference to the clarinet and clarinet playing that you felt were not covered in this survey?”* as a free response question, the overwhelming majority said “No.” The few answers otherwise requested more information on auxiliary instruments, solo and ensemble repertoire suggestions, and instrument maintenance/repair.

When evaluating the survey results as a whole, the study ultimately identified that there were five general fundamental skills that band directors express needing the most support: Embouchure, Altissimo/Voicing, Articulation, Technique/Hand Position/Alternate Fingerings, and Intonation (the natural tendencies of the clarinet instrument itself). These fundamentals skills listed above will provide the grounding topic of each chapter in the resource guide provided in Part II of this essay. In the following resource guide, the researcher describes a perspective to teach these skills along with specific exercises for clarinet students to utilize. Each chapter also includes an annotated list of various method books for band directors to utilize as a resource in the classroom for their students in addition to links to videos created by the researcher for their students to watch and learn from.

The resource guide was written with the goal of improving the ability of middle and high school band directors to support the development of their clarinet students in addition to increasing the skill level of developing clarinet players by better equipping their band directors with the resources they need to ultimately provide these students with a better musical experience.

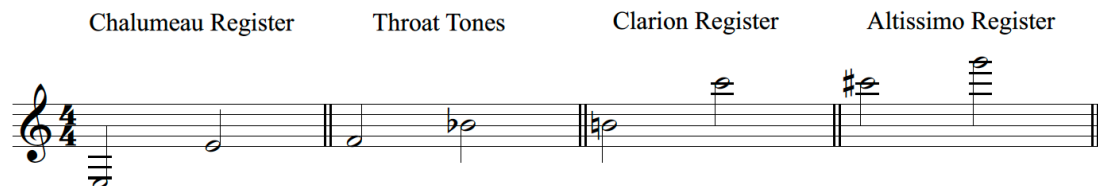
There are a number of opportunities I plan to explore after completing this project. First, I will consider having the guide published as a series of articles in music education journals in order to disseminate the information faster and have the resource be available to music educators in the most efficient way. I also think it would be interesting to write and disseminate additional surveys, with the aim of creating two more volumes of this resource guide, creating a three part body of work. One of these guides would focus on equipment, including, but not limited to, mouthpieces, ligatures, reeds, barrels, bells, and instrument brands and selection. An additional guide would discuss auxiliary instruments, focusing on bass clarinet and Eb clarinet. Lastly, I would consider regularly creating more instructional videos on my Youtube page to accompany the ones created for this guide as an online resource for clarinet students that could expand on other fundamental skill as well as discussing interpretations of various etudes, method books, and repertoire.

## CHAPTER SIX

### Embouchure

A stable and consistent embouchure is at the core of good clarinet playing. Unlike most other wind instruments, the clarinet embouchure is not manipulated to accommodate playing in different registers. As a reference point for the remainder of this fundamentals guide, the names and ranges of the registers of the clarinet can be seen in Figure 6.1.

Figure 6.1. Registers of the Clarinet



With the exception of altissimo notes above the range shown in Figure 6.1, the clarinet embouchure should, for the most part, remain consistent and unchanged throughout the registers of the clarinet.<sup>11</sup> Before any other aspects of clarinet playing can truly be addressed, a proper clarinet embouchure must be

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<sup>11</sup> Phillip O. Paglialonga, *Squeak Big: Practical Fundamentals for the Successful Clarinetist* (Medina, New York: Imagine Music, 2015), 6.

developed. As seen in the results found in the previous chapter, a strong majority of band directors surveyed were within the “somewhat comfortable” range or lower when assessing their ability to teach embouchure formation during their first year of teaching. This is a concerning result considering the importance of the clarinet embouchure in being able to excel in playing the clarinet.

There are two different types of clarinet embouchure, the single lip embouchure and the double lip embouchure. The double lip embouchure was once very prevalent in clarinet playing, particularly in the French school of teaching, but is much less common in today’s clarinet pedagogy. A double lip embouchure on clarinet consists of the top lip covering the top teeth along with the lower lip covering the bottom teeth, similar to how double reed players play their instruments.

Seen much more frequently today is the single lip embouchure in which only the lower lip covers the bottom teeth while the top teeth are securely placed on the top of the mouthpiece. The formation of the single lip embouchure is what will be described below.

When teaching a clarinetist how to form a proper embouchure, simplify the process into two simple steps. It is important to note that these steps are both done first without the clarinet.

1. Have the student say the word, “glue.”
  - a. The director should notice that saying this word with the long ‘u’ vowel sound causes the corners of the mouth to come in and

forward and the chin does not scrunch up. This provides a loose foundation for the correct formation for the embouchure.

2. With the mouth holding the formation after saying the word, “glue,” have the student curl their bottom lip over their bottom teeth.
  - a. The director should notice that in order for the bottom lip to curl over, the corners of the student’s mouth will pull back *slightly* while the chin appears to be pulled down. The instructor should also observe that there is a square shape that develops within the chin when the proper embouchure is formed.
  - b. The amount of bottom lip over the teeth will vary depending on anatomy; students with larger lips will have less lip curling over and students with thinner lips will have more. If there is no pink portion of the lower lip showing, the student has curled too much of the lower lip over the teeth. If the corners of the lower lip are protruding outward, the student has not curled the lower lip over the bottom teeth enough.
  - c. I often like to make students aware of the firmness of the bottom lip, describing it as the perfect “Goldilocks” bed. If it is too firm, the reed has too much freedom to vibrate and will create a spread sound; if the bottom lip is not firm enough, the reed will be suffocated and not able to vibrate enough to produce a clear sound.

As a point of reference, below is a list of characteristics that should be evident in a proper single lip embouchure:

- The corners of the mouth are firm
- Bottom lip is covering the bottom teeth and is firm
- Chin is flat

Following these steps and helpful guidelines to form a proper clarinet embouchure will help to create the foundation students need to develop a strong embouchure that will lead them to more success on the instrument.

Varying the descriptive language used to achieve a singular goal can be a helpful tool for students to better understand the concepts associated with a proper clarinet embouchure. Listed below are additional ways to describe the process of forming a proper clarinet embouchure:

- Have the student whistle and then curl the bottom lip over their bottom teeth
- The student can think of their lips being a drawstring that creates an equal amount of firmness around the embouchure
- Have the students pretend to drink from a straw and then curl the bottom lip over (actual straws can be used for a bonus visual effect)<sup>12</sup>

Once the student has mastered this sequence and acknowledged what it should look like in the mirror, the student can continue embouchure development

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<sup>12</sup> Danielle Woolery, "Correcting Technical Deficiencies in High School Clarinet Sections: A Resource for Band Directors" (DMA essay, University of Miami, 2011), 36.

with the mouthpiece (with reed and ligature) attached to the barrel. Having the student play with just the mouthpiece and barrel is a very effective way to determine if the student is playing with the correct embouchure. Have the student create the embouchure using the three steps above. Then, the student should bring the mouthpiece and barrel *to them* rather than leaning to the mouthpiece and barrel. The mouthpiece should be placed inside the embouchure at an angle between 35 and 45 degrees.<sup>13</sup>

The amount of mouthpiece that the student has inside the embouchure is also a very important factor for efficient sound production. If a student has too much of the mouthpiece in their mouth, the resulting sound will most likely be a squeak. Opposingly, if the student has too little mouthpiece in their mouth, the resulting sound will be weak with no overtones.<sup>14</sup>

Determining the proper amount of mouthpiece is actually quite simple for both the teacher and student. One approach is to look at the profile of the mouthpiece and note where the reed begins to separate from the facing of the mouthpiece. If the director or student is having a difficult time seeing this, they may take a piece of paper and gently slide it between the mouthpiece and the reed. The location where the paper stops is approximately where the bottom lip should lie on the mouthpiece. A line can also be drawn, with pencil, across the reed where the piece of paper stops to create even more of a visual for the student.

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<sup>13</sup> Paglialonga, *Squeak Big*, 11.

<sup>14</sup> Paglialonga, *Squeak Big*, 9.



With the proper embouchure, the pitch sounded from the student playing the mouthpiece and barrel should be a concert F#. If the pitch is sharp, the student is most likely “biting” or using too much jaw pressure. The embouchure should be secure but not forced. The mouthpiece should be able to stay stable without feeling rigid. The director should note that “biting” most likely occurs from the bottom jaw pressing too firmly against the reed.<sup>15</sup> On the contrary, if the pitch is flat, the student may not be using enough pressure. If you attempt to move the barrel as a student is playing and the mouthpiece shifts a lot and/or feels insecure, the student needs more embouchure strength supporting the sound. I personally like to describe the embouchure around the mouthpiece as if it is a hair-tie, securely holding everything in place or like a drawstring bag being pulled slightly tighter. Additionally, if the concert F# is flat, the student’s tongue position may be too low. In this case, have the student form a long ‘e’ vowel sound to help raise the tongue position. Voicing will be discussed in more depth in the following chapter.

Once the student is consistently and confidently able to produce a stable, in-tune concert F# with only the mouthpiece and barrel, the rest of the clarinet can be introduced. There is a simple interactive “test” to determine that the embouchure is remaining consistent. Twist the body of the clarinet (everything under the barrel) 180 degrees so that the tone holes are accessible for the teacher. The teacher can finger the notes while the student simply forms a proper embouchure and blows into the mouthpiece. If the embouchure is correct and

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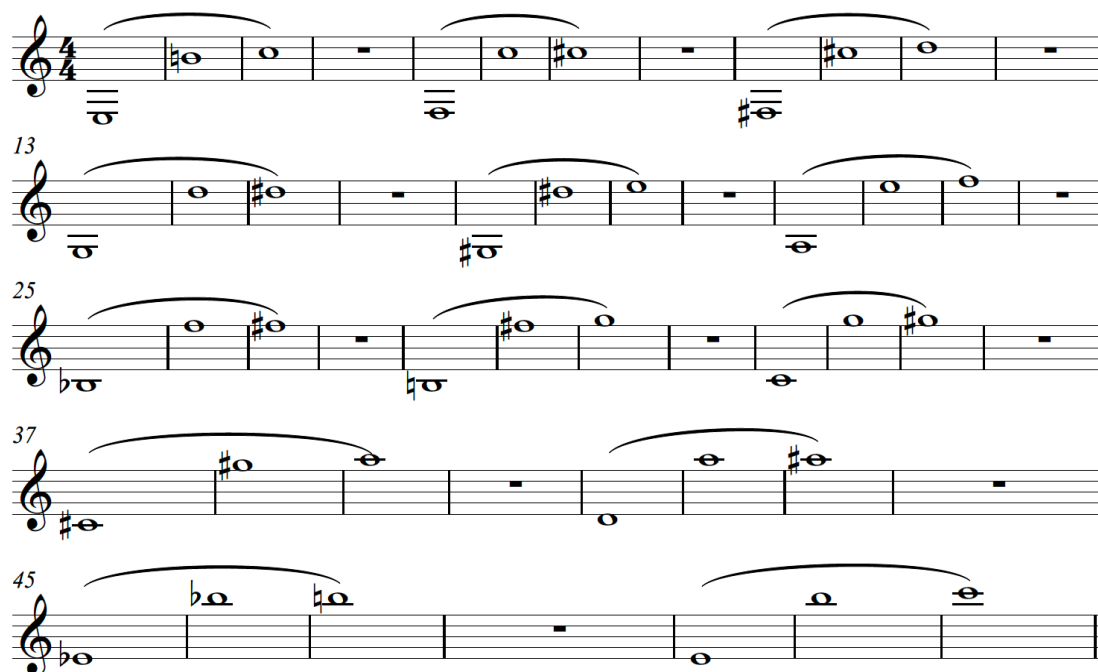
<sup>15</sup> Frederick W. Westphal, *Guide to Teaching Woodwinds*, 5<sup>th</sup> ed. (Dubuque, Iowa: Wm. C. Brown Publishers, 1990), 71.

stable all of the notes will speak clearly without strain. This is also a great way to convince students that playing clarinet does not involve much manipulation of the embouchure for each note.

### *Exercises to Assist Your Students*

The *2 Register Exercise*, Figure 6.2, is intended for students who are already able to cross the break. It is a great exercise to ensure that students are forming the proper embouchure in addition to building embouchure stamina – an absolute must for budding clarinet players. Ideally the exercise should be practiced as written with the metronome set at quarter note at 60 beats per minute. However, this exercise can easily be modified slightly by adjusting the metronome marking for a faster tempo and gradually moving it down as the student progresses or by having the student only hold each note for two beats to start and gradually playing them for three beats each and working up to ultimate goal of playing each note for four counts. This exercise can also be increased with the opposite (by slowing down the metronome tempo and/or adding more beats) to build more stamina and control. The most important aspect of this exercise is that the student does not use the tongue to articulate under the slur over the three notes. The students must slur the three notes to identify that the embouchure is secure and the air is moving through the instrument, allowing the intervals over the break to happen smoothly. A link to a video demonstrating this exercise can be found at the end of this chapter.

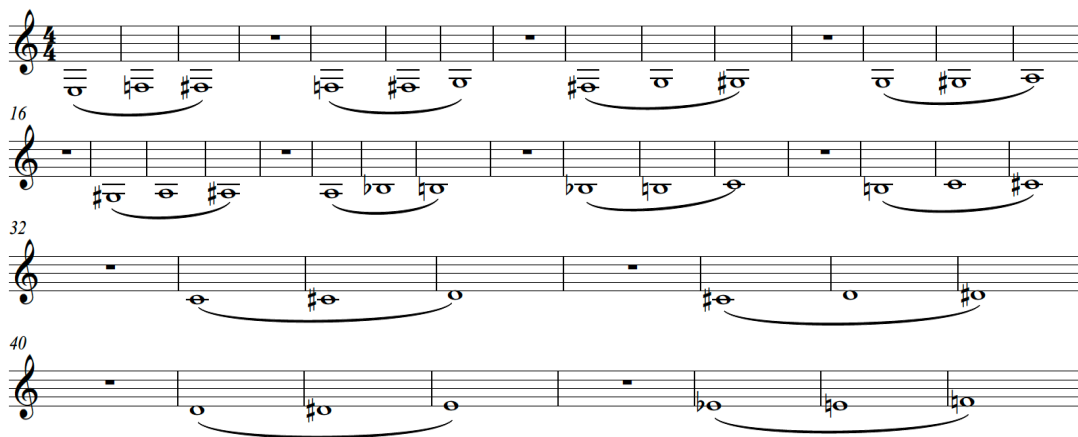
Figure 6.2. 2 Register Exercise



The *Embouchure Builder for Developing Students* exercise in Figure 6.3 is a modification of the *2 Register Exercise*, and is intended for beginner students who are not yet comfortable crossing the break. As in the *2 Register Exercise*, the ultimate goal is to play the exercise as written at a tempo of quarter note at 60 beats per minute. Additionally, there should not be any articulation between the three notes under each slur and the tempo and duration of the notes can be varied to accommodate varying levels of students. This modified exercise will still allow for students to practice smooth transitions from note to note, build embouchure endurance, and attempt to achieve an even sound throughout the duration of the exercise, it simply eliminates the challenge of going over the

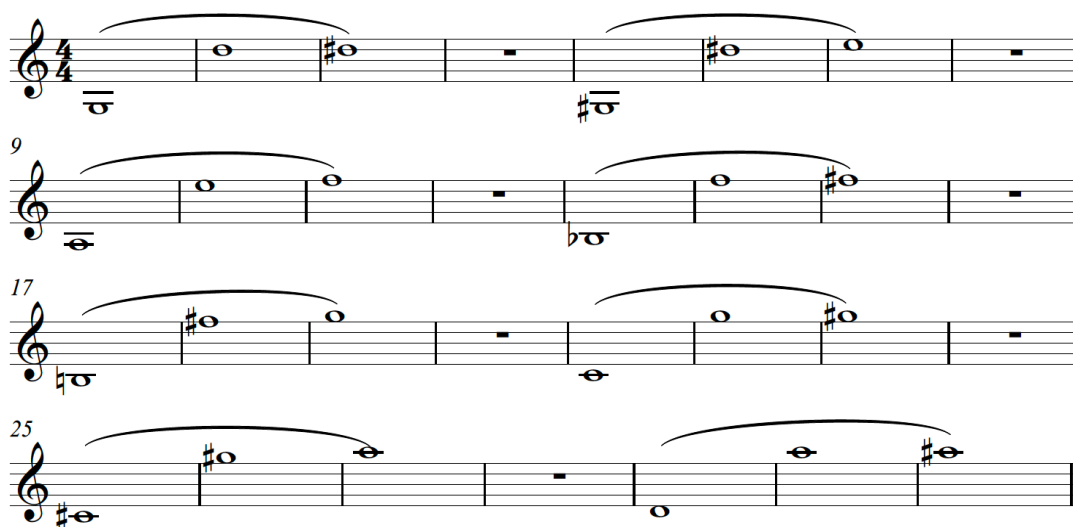
break for students who are still early in their development. A link to a video of this exercise being played can be found at the end of this chapter.

Figure 6.3. Embouchure Builder for Developing Students



*Crossing the Break*, Figure 6.4, is an additional modification specifically designed for students that are just beginning to cross the break. As with the exercises above, the student should strive to play this exercise at quarter note equals 60 with no articulation between the notes under each slur. This exercise avoids going into a range that a student at this level of development may be uncomfortable playing, particularly eliminating the use of the pinky keys.

Figure 6.4. Crossing the Break Exercise



### *Other Recommended Sources for Student Development*

#### **Method for Clarinet by H. Lazarus Part I revised by Simeon Bellison**

ISBN: 0-8258-0206-7

Henry Lazarus was one of the most prominent English clarinet players and pedagogues of the 19<sup>th</sup> century. His method book for clarinet is a staple in clarinet pedagogy and is a valuable resource for both students and band directors. The *First Lessons* section on page 29 of this edition is particularly useful for developing the proper clarinet embouchure and building stamina. This section is comprised of numerous long tone exercises, including those that focus on intervals (2nds, 3rds, 4ths, etc.). Interval studies provide a true test for students to maintain a stable and consistent embouchure.

### **Tone, Technique & Staccato from the Avrahm Galper Clarinet Series**

ISBN: 978-078-669-618-5

*Tone, Technique & Staccato* by Avrahm Galper, former principal clarinetist of the Toronto Symphony Orchestra and pedagogue, is a method book that can be utilized for the duration of a student's clarinet studies from early development through advanced playing. To specifically address building the embouchure and thus tone production, the "Low Register Exercises" which are found between pages 9 and 15 of this addition are excellent. It is important to have the students follow the instructions given in the method book in order to gain the most benefit from the exercises. The focus when playing these exercises should be on embouchure building and tone production, not speed of fingers. The student and instructor should be constantly examining the embouchure and ensuring that there is no movement as different notes are being played, and that the tone stays smooth and consistent throughout the exercises. For students that are already playing over the break, the "Transition to the Upper Register" section found on pages 16 and 17 provide great exercises that develop embouchure stability.

### **Clarinet Warm-Ups: Materials for the Contemporary Clarinetist by Kelly Burke**

Published by Dorn Publications, Inc.

This warm-up book, written by Kelly Burke, retired faculty from University of North Carolina at Greensboro, is an invaluable resource for band directors to have for their students. When focusing on embouchure development and building stamina, "Long Tone Study #2" and "Long Tone Study #3" found on pages 20 and 21

respectively are great for all students. “Long Tone Study #2” has different sections for the chalumeau, clarion, and throat registers so the director can have the student utilize whichever registers they are comfortable with. “Long Tone Study #3” expands the long tone intervals, to help the student focus on maintaining a consistent tone quality across registers. The exercises also include tips and instructions from Dr. Burke.

### *Links to Instructional Video for Students*

Information found in this chapter:

<https://www.youtube.com/watch?v=O62ELj-BMlc&feature=youtu.be>

2 Register Exercise:

<https://www.youtube.com/watch?v=RXCdHLDlv9w>

Embouchure Builder Exercise:

<https://www.youtube.com/watch?v=hQxGpQA9JsQ&feature=youtu.be>

Crossing the Break Exercise:

<https://www.youtube.com/watch?v=Y6263GjzyKw&feature=youtu.be>

## **CHAPTER SEVEN**

### **Altissimo and Voicing**

Infamously the most challenging register to play on the clarinet, the altissimo can prove to be a rather large obstacle to the budding clarinet player's development. In my experiences both as a teacher and performer, simpler is better when developing the altissimo register of the clarinet. The altissimo register of the clarinet consists of the C# (concert B) above the staff up to the G (concert F) above that. The director should note, it is extremely important that the student is already comfortable playing the notes below the altissimo register before attempting to play this register of the clarinet.

One of the most challenging aspects of getting comfortable with the altissimo is that the fingerings seem very awkward and random, particularly when isolated out of context. When learning to cross the break, students learn that the clarinet fingerings for the chalumeau register (Figure 6.1) have parallel fingerings in the clarion register, by simply opening the register key. Some notes within the clarion have a similar relationship with notes in the altissimo register. This relationship is connected by lifting the left index finger, opening what can be referred to as the "second register key."

Begin teaching the altissimo register by having students play chalumeau A at a forte dynamic level. Ensure that their air stream is steady and strong while



their embouchure utilizes the characteristics listed in chapter six of this essay. If the sound is steady and clear, the student is ready for the next step which is to add the register key. This will produce the clarion E. Once this step occurs with a clear, steady sound, the student can move on to step three, which is to lift the index finger of their left hand. This opens up what can be considered the “second register key” of the clarinet and in this case will result in altissimo C#. This same process can be utilized for the chalumeau Bb, B, C, C#, and D leading to clarion F, F#, G, G#, and A when the register key is opened, and will ultimately result in altissimo D, D#/Eb, E, F, and F# respectively when the “second register key” is opened. For the notes following the altissimo C#, the Eb pinky key in the right hand should also be opened for pitch and resonance. It is also important to note that it is recommended the student utilize the sliver, or chromatic, chalumeau B fingering in order to land on the proper altissimo D#/Eb. This fingering can be found in Figure 9.3. This approach to the altissimo register helps to provide a larger context to these fingerings and hopefully allow for more efficient understanding for the student. The exercise described above is the *3 Register Exercise*, Figure 7.2, found later in this chapter.

It is important to note the student should be able to complete this exercise by doing nothing else but opening the register keys. The student should not be “reaching” for the note by adding jaw pressure. If the student is unable to complete this exercise, the result provides valuable information about their voicing. If the notes in the altissimo are not speaking and staying low – almost sounding like a grunt or undertone – the student is not using fast enough air and

the embouchure may need more stability (refer to Chapter 6 for tips on creating a stable embouchure). It is also possible that the voicing, or tongue position, is not high enough. For the altissimo register to speak clearly, the back part of the tongue must be high and arched. The easiest way to achieve this position is by having the student think of the long 'e' vowel sound while still maintaining the "glue" embouchure discussed in Chapter 6. If the opposite is happening and the altissimo is "squeaking," the student is applying too much pressure with the embouchure, commonly referred to as "biting" or is incorrectly voicing by placing the tongue position too high. Have the student turn the body of the clarinet around so that the director is controlling the fingers while the student plays with the correct embouchure and steady air stream. When the director gets to the altissimo, there should be no problem with the notes speaking. This process is an excellent display to the student that there is no adjustment needed in the embouchure for these notes to speak. If the embouchure is stable and the air stream is steady, this register of the instrument will be able to speak with much less stress than is usually associated with it. It is also important for directors to note that there are no actual squeaks on clarinet. The squeak is in fact a note in the wrong partial, most often caused by incorrect voicing and/or embouchure pressure. It is important that clarinet students feel supported and not embarrassed when the sound cracks. With the knowledge that they are simply going up a partial they are able to learn and adapt to have better control of the altissimo and perhaps a better grasp of how to reach the higher partials they are hitting more consistently.

Another potential cause of strife when attempting to develop a student's comfort with the altissimo register of the clarinet is the reed. As a student is developing, the reed strength they play on will need to change. Although the reed size is not determined by a specific age or level, the reed strength must be appropriate for the student in order for their skills to continue to progress. If the reed is too soft, the altissimo register will speak but will be shrill and flat in pitch. Should the reed be too hard for the student, the response will be very difficult, causing the student to apply excess pressure or "bite" in the attempt to have the register speak. The tone quality will also be rather scratchy and/or airy.

The following is a checklist for directors and students to assess what should be happening for the altissimo to speak clearly:

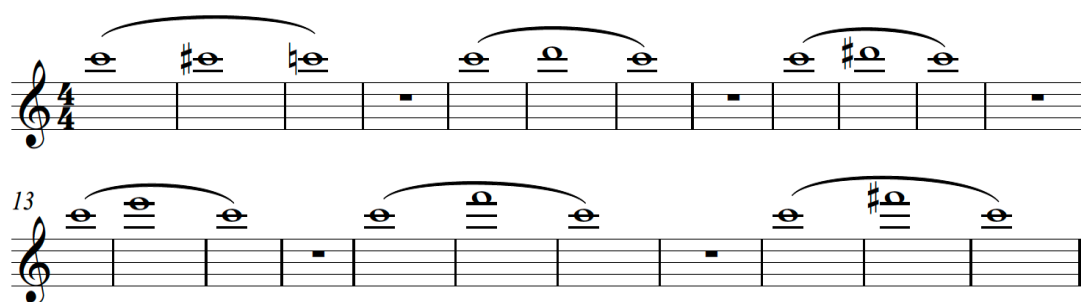
- A steady airstream
- A stable embouchure (refer to Chapter 6)
- The student is not "biting" or applying too much pressure on the mouthpiece or reed
- The reed strength is appropriate for the student's ability level and comfort
- The Eb pinky key in the right hand is being pressed

### *Exercises to Assist Your Students*

The "C" *Stretches* exercise, Figure 7.1, is a great exercise for students who are just beginning to work on the altissimo register. The exercise should be

played with a metronome set at 60 beats per minute with no articulation under the slur markings. This exercise can be modified by adjusting the metronome marking to a faster tempo and gradually moving it down as the student progresses or by having the student only hold each note for two beats to start and gradually lengthening them to three beats each, working up to ultimate goal of playing each note for four counts. As the title implies, this exercise allows the student to “stretch” their comfort level in the altissimo range. The C above the staff serves as the constant spot-check to ensure that the student is maintaining the correct voicing for the altissimo. If the note above C grunts and does not speak, the voicing is not high enough and the tongue position needs to be raised. Should the note above C overblow to a higher partial (formerly known as a squeak), then the student will know that the voicing is too high and the tongue position needs to be lowered.

Figure 7.1. “C” Stretches



The *3 Register Exercise*, Figure 7.2, serves as a subsequent exercise to begin only after the student feels comfortable with the “C” *Stretches*. Like the “C” *Stretches*, the goal is for the student to practice this exercise with the metronome set at 60 beats per minute and without any articulation under the slur. This exercise can be modified by adjusting the metronome marking to a faster tempo and gradually moving it down as the student progresses or by having the student only hold each note for two beats to start and gradually playing them for three beats each, working up to ultimate goal of playing each note for four counts. The student’s voicing should remain consistent for all three pitches under each slur in order for them to speak clearly and resonantly. The student should be able to play in all three of these registers of the clarinet while maintaining the same, consistent voicing throughout.

Figure 7.2. 3 Register Exercise



### *Other Recommended Sources for Student Development*

#### **The Development of the Altissimo Register for Clarinet by Norman M. Heim**

Published by Kendor Music, Inc. (KN. 20980)

As the title would imply, this method book by Norman Heim is focused entirely on the altissimo register of the clarinet. The book begins with an explanation of the symbols used throughout the method in addition to an introduction that explains his opinions on how to properly master the altissimo register. The section found on page two entitled, “II. Smaller Intervals in the Altissimo Register (Second and Thirds)” is a great place for students attempting to develop their altissimo register should begin. The rhythms are kept simple with the range gradually increasing throughout the section. Additionally, the notes are slurred to ensure that the students and director can determine that the embouchure and air are doing what is needed to effectively play in the altissimo register.

#### **Tone, Technique & Staccato from the Avrahm Galper Clarinet Series**

ISBN: 978-078-669-618-5

This method book was also utilized in Chapter 6 for embouchure development. The section, “Transition to the Upper Register” provides great exercises for extending the range of the developing clarinet student. The exercises on page 22 with the subheading, “These exercises can help you move smoothly into the altissimo register,” assist to isolate the altissimo using large

leaps of extended fifths. Directors should inform their students that there must be a large crescendo from the quarter note anacrusis into the altissimo note while not adjusting the embouchure. Directors should note, these are examples of exercises to continue development of the altissimo, not exercises that should be used as an introduction to the altissimo.

### **Clarinet Fundamentals 3: Intonation by Reiner Wehle**

ISBN: 978-3-7957-5806-6

This method book is the third installment of a three part collection by Reiner Wehle, husband to famous clarinetist, Sabine Meyer, and a distinguished clarinetist in his own right. It is in both English and German throughout and is admittedly sometimes confusing as he does not always write out every exercise. However, the intonation exercises found between pages 58 and 65 are easy to understand and help develop the upper register of the clarinet. Each exercise under the heading, “37. Legato Exercise with Major and Minor Triads” has two staves. I recommend students who are just beginning to get comfortable with the altissimo range start with the bottom staff. This staff has the student start at a lower note which then goes up to the altissimo, rather than vice versa. Once comfortable with the exercise on the bottom staff, the student can begin to practice the top staff. These can also be played as duets with the teacher or with another student. When the student is ready to add another layer of difficulty, Wehle has indicated to play these exercises three times with various dynamic markings. The first time at mezzo piano, the second at forte, and the third at

pianissimo. The exercises under the heading, “38. Legato Exercise with Major and Minor Triads” and “39. Legato Exercise with Semitone Movement” use the same process described above but each exercise is one measure longer and move at varying intervals.

*Links to Instructional Videos for Students*

Information found in this chapter:

[https://www.youtube.com/watch?v=j1\\_1ssfu\\_6M&feature=youtu.be](https://www.youtube.com/watch?v=j1_1ssfu_6M&feature=youtu.be)

“C” Stretches Exercise:

<https://www.youtube.com/watch?v=--T-xhb3s5M&feature=youtu.be>

3 Register Exercise:

<https://www.youtube.com/watch?v=4BonietX7ww&feature=youtu.be>



## CHAPTER EIGHT

### Articulation

The most inconsistent fundamental clarinet skill that I experience when working with middle and high school band programs is undoubtedly articulation. When done incorrectly, articulation can create an abundance of consequent issues that hinder the development of a budding clarinet student.

The challenge in teaching articulation is that without the use of medical equipment, it is impossible for teachers to see what is happening inside of a student's mouth while they are playing. Unfortunately, what is happening inside the oral cavity influences aspects of playing including tone quality, resonance, pitch, and range. Although the tongue position is most commonly associated with voicing for the altissimo register, the tongue position actually influences many qualities of clarinet playing. Consequently, when a student is articulating incorrectly, a snowball effect can occur, causing the student to struggle in multiple areas of their playing.

Articulating properly and effectively is primarily about efficiency. The tongue is a muscular organ within the oral cavity that connects to the back of the throat.<sup>16</sup> Very often students use too much of the tongue to articulate on the

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<sup>16</sup> *Encyclopaedia Britannica Online*, s.v. "Tongue," <https://www.britannica.com/science/tongue> (accessed March 7, 2019).

clarinet. This results in the tongue moving horizontally back and forth across the oral cavity in order to make contact with the reed and then come away. This large motion forces the need for more space to be created within the oral cavity. When this occurs, the director will see the student's jaw moving as they articulate. Articulating this way will result in the inability of the student to increase their articulation speed and the articulation will sound heavy. A light staccato will be an extreme challenge for students articulating this way.

In order to be most efficient, the only part of the tongue that should move when articulating on the clarinet is the very tip of the tongue. Additionally, this movement should be an upward motion reaching up to the reed, not a back and forth motion reaching toward the reed. The tongue does not have to work very hard at all in order to articulate properly. Students often exert far too much effort when articulating, which prevents them from being able to articulate lighter and faster.

To develop clarinet articulation, have the student start by only using air to play any note between throat tone G and the C right below the staff. Then have the student stop the sound with the tip of the tongue maintaining contact with the tip of the reed, closing the opening at the tip of the mouthpiece while still attempting to blow air through. The student should feel back pressure from the air still moving with the reed pressing against the tip of the mouthpiece. The student should then have the tip of the tongue drop down slightly away from the reed allowing the air to enter the mouthpiece, initiating reed vibration, thus producing a sound. This process, touching the tip of the tongue to the tip of reed,

should be repeated and be sped up. This is exactly how the students should be articulating.

The student should evaluate what part of their tongue is making contact with what part of the reed. The ideal placement is just below the tip of the reed and the top tip of the tongue. If you visualize the tip of the tongue as your finger, the part of the tongue that is making contact with the reed is the equivalent to being just before the end of your fingernail.

A common problem seen in many developing (and even advancing students) is that they are articulating using an area too far back on their tongue. In its most dramatic form, this form of articulation can sound like a thick “thud” when the student is articulating. This “thud” is the first, and most obvious, sign that the student is articulating too far back on the tongue. Despite this form of articulation being much more difficult to develop, it is very much possible for a student to master this type of articulation to a point that it is so subtle, the director may not even notice it is occurring. If the student can be taught early on in their development to articulate correctly, it will help to alleviate many potential problems that may arise in the future with gaining lightness and speed with their articulation.

Another way that some students may articulate is by having the tip of the tongue locked or anchored behind the bottom teeth and having a point farther back on the tongue push forward to articulate against the reed. This is referred to as anchor tonguing. Unlike the problem mentioned above of articulating too far back on the tongue, anchor tonguing does not necessarily result in a heavy

“thud” sound when articulating. Rather, anchor tonguing can provide a beautiful legato articulation. Anchor tonguing is an alternative way to articulate that some students will do naturally, but does have similar shortcomings in comparison to “tip-to-tip” articulation. Students who anchor tongue will ultimately have a difficult time articulating a separated staccato and will have a very difficult time speeding up the articulation – problems that may not arise until later in their development.<sup>17</sup> Due to these problems, it is recommended that students learn articulation as the tip of the tongue touching the tip of the reed. Unfortunately, the only way for a director to know how a student is articulating is to ask. Have the students evaluate how they are articulating so the corrections can be made to set them up for success later in their ability to achieve a light articulation that can gain speed.

While a clarinet student is learning how to articulate correctly and efficiently, the director and student should confirm there is:

- No jaw movement
- No lower lip movement
- No throat movement
- No excess percussive-like sounds while articulating i.e. “thud”

### *Exercises to Assist Your Students*

The following exercises are developmental exercises for building articulation clarity and speed. The *Articulation Warm-Up*, Figure 8.1, is for the

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<sup>17</sup> Howard Klug, *The Clarinet Doctor* (Bloomington: Woodwindiana, Inc.), 77.

advancing student that is already comfortable with playing major scales. This exercise only utilizes articulation on one repeated note at a time. This is to ensure that the focus is on developing the articulation process and not finger-articulation alignment. When playing this exercise, the student should have a metronome set to maintain consistent time. The repeated articulated notes are marked staccato and should be speak cleanly and clearly. The exercise should be played with three different tempi in mind. The first level is labeled, “safe.” The “safe” tempo marking should be one that is on the slower side of the student’s articulation speed, a tempo that the student knows with absolute certainty they are able to execute cleanly. The second tempo level is referred to as, “reliable.” This is a tempo slightly faster than “safe” but does not push the student to a breaking point in terms of articulation speed. The last tempo level is the “push.” This is the tempo that has the student reaching the “max out” of their articulation. The student may not be able to get through the entire exercise continuously at this tempo and that is okay, but they need to be able to at least be able to get through two measures at a time. Utilizing these various tempi will allow the student to develop consistency in the way they are articulating at the same time they are developing speed.

Figure 8.1. Articulation Warm-Up

The musical score for 'Articulation Warm-Up' consists of eight staves, each containing two measures of music. The first measure of each staff is a continuous eighth-note pattern. The second measure features a melodic line with various intervals and accidentals, often slurred. The staves are numbered 1, 3, 5, 7, 9, 11, 13, 15, and 17 at the beginning of each line. The key signature changes from one sharp (F#) to two flats (Bb, Eb) between staves 11 and 13. The time signature is 4/4.

1

3

5

7

9

11

13

15

17



The *Smooth and Separated* exercise, Figure 8.2, is an articulation exercise for developing students. The exercise is shown on one note but can be played on any note in order for the student to develop their articulation throughout the various registers of the clarinet. Directors and students should note the legato articulation, and should ensure that the students are using a consistent air stream while articulating to keep everything connected. The staccato articulation should utilize the same air stream but use a faster tongue motion for the tip of the tongue to return to the tip of the reed. This exercise can also be practiced as described above with “safe,” “reliable,” and “push” tempi to help ensure proper articulation is occurring as well as develop agility and speed.





### **Tone, Technique & Staccato from the Avrahm Galper Clarinet Series**

ISBN: 978-078-669-618-5

The “Staccato” section of Galper’s method book can be slightly confusing to read but extremely useful for the advancing clarinetist if done correctly, based on his instructions. Galper focuses on having the articulation patterns starting off the beat. The first bar is on a single note to warm up the style and articulation and avoid “harsh tonguing.” The second measure is a one octave ascending scale articulated that is intended to be repeated by holding the tonic note and waiting until an off-beat to begin the ascending scale again. The subsequent line has an arpeggio exercise that is to be played as written. Lastly, there is a short scale exercise that is played differently the two times it is repeated. The first time, the exercise has a slurred articulation as a way to ease into increasing the tempo of the exercise. The slur is omitted upon the repetition of the exercise. These exercises help to prevent articulation exercises from becoming stale, and assist in students developing the skills to articulate evenly throughout the various registers of the clarinet.

### **Clarinet Fundamentals 1: Sound and Articulation by Reiner Wehle**

ISBN: 978-3-7957-5804-2

This method book is the first installment of a three part collection by Reiner Wehle, husband to famous clarinetist, Sabine Meyer, and a distinguished clarinetist in his own right. It is in both English and German throughout and is admittedly sometimes confusing as he does not always write out every exercise.

Wehle's design for this method book seems grounded in simplicity, an approach I find beneficial when developing articulation. The articulation exercises begin on page 31 with exercise 2. In this exercise, Wehle promotes minimal tongue movement to create the articulation and has the articulation marked as legato under a slur. The exercise is performed starting on throat tone G at a "calm" tempo of quarter note equals 80 and sequentially go down by half steps to eventually end up on the E below the staff. The director and student should ensure that there is no visible jaw or throat movement during these exercises and listen for an open, clear sound. These exercises are found throughout the method book and are excellent ways to help developing students improve articulation across the various registers of the clarinet.

### **17 Staccato Studies for Clarinet by Reginald Kell**

Published by International Music Company

This is an etude book written by Reginald Kell, a prominent English clarinetist of the 20<sup>th</sup> century, that focuses on developing articulation for serious, advancing students. The exercises are in various keys and meters but all stress the staccato articulation which is described by Kell as, "the musical effect created by detaching a note from its neighbors." The director and student should be looking for zero movement around the embouchure and listening for a consistent, clear, and centered sound while playing the etudes.

*Links to Instructional Videos for Students*

Information found in this chapter:

<https://www.youtube.com/watch?v=NqHu05TeTqI&feature=youtu.be>

Articulation Warm-Up:

<https://www.youtube.com/watch?v=7luemZOjlgc&feature=youtu.be>

Smooth and Separated:

<https://www.youtube.com/watch?v=08AdCLZaxNE&feature=youtu.be>

## **CHAPTER NINE**

### **Hand Position and Technique**

Technique is the fundamental skill that can be the most frustrating for students. Having a low level of technique can be extremely discouraging for students and leave them feeling as if they are not good at the instrument or that they simply won't ever be as good as their peers. For both students and directors alike, it is important to note that technique can be developed with any student. There is not a point when a student stops progressing in their development of technique.

#### *Hand Position*

The root of proper clarinet technique and injury prevention is in the hand position. In my experience, I have found the most effective approach to teaching hand position is the approach that is also the most natural. Have the student shake out their hand and let it flop to their side, letting their arm hang loosely at their side. The student should then lift their forearm to a 90 degree angle, still allowing the wrist to be limp. The director and student should notice the hand is relaxed and a 'v' shape between the thumb and index finger. This is exactly the hand shape that should occur when playing the clarinet. Other common ways of

referring to hand position involve a 'U' shape in the hand or imagining that you are holding a tennis ball in your hand to create rounded finger shape. Although these methods are commonly used, I have found that these can tend to create excess tension, which can lead to injury and limit technique fluidity. The goal of proper hand position is for the hands to be in the most relaxed state, completely free of tension. It is important for directors to stress to their students that instruments (clarinet included) were designed with the player in mind. The instrument is made to feel comfortable when in your hands, not awkward or tense.

Once the general hand position is acknowledged, the student can apply it to the clarinet. The right hand should be placed first by having the student place the right corner of the thumb, at the end of the nail arch, either under the left side of the thumb rest or a little past the left side of the thumb rest depending on the size of the student's hand. The index, middle and ring fingers in the right hand will go above the tone holes while the pinky will have a contact point of either the Eb pinky key or the C pinky key, again depending on the size of the student's hand. The right hand should angle slightly upward so that the index finger has a contact point with the side Eb key at or slightly below the second knuckle (the knuckle in the middle of the finger).

If you are looking at the back of the clarinet like the face of a clock, the left thumb should be angled toward one o'clock. This allows the register key to be accessed with a simple tap while the thumb remains on the thumb tone hole. The left hand should maintain the 'v' shape while the fingers tilt slightly upward. This

allows there to be two contact points on the index finger. The first contact point should be on the G# throat tone key with the second knuckle (middle of the finger) and the second contact point should be on the A throat tone key with the third knuckle (the knuckle closest to the fingertip). Depending on the size of the student's hand, the pinky should have a contact point of either the chalumeau C# key (for smaller hands) or the clarion B key (average to larger hands). It is important for the director and student to note that there should be flexibility in the wrists and a looseness in the knuckles. There should be absolutely no stiffness or tension. The hands and wrists should be thought of like the beams that hold stoplights. Although they look very sturdy and rigid, on a very windy day the posts move up and down. This can be unsettling to see but if they were to remain rigid, the pressure of the wind would cause them to break. The flexibility allows the post to remain strong enough to support the stoplight while being able to have free movement and prevent serious damage.

The fingers should stay hovering over the keys, a little above the rings of the tone holes. If the fingers are too close, the pitch of notes will be affected. If the fingers are too far away from the instrument, agility in technique will be difficult to acquire. Movement of the fingers should come solely from the first knuckle of each finger. The fingers should never move through the second and third knuckles of the fingers. This creates a "scooping" motion where the fingers move away and back to the tone holes, which decreases efficiency in technique and inhibits agility.

### *Chromatic Fingerings*

Upon first glance, one of the intimidating things about the clarinet for young players is the sheer number of keys. In order to minimize the confusion and frustration, students should be informed of key function on a need-to-know basis with information being provided as the student progresses.

Chromatic fingerings are used to create smoother transitions between specific notes. For example, moving from chalumeau B natural to chalumeau B flat or vice versa, would normally involve the student having to “flip” the middle finger to the index finger or index finger to middle finger respectively. However, the B natural chromatic fingering eliminates this problem completely. When the sliver key below the second tone hole in the right hand is added to the fingering for B flat, the resulting pitch is B natural. This fingering is also applicable to clarion F and F sharp. Utilizing this fingering can immediately prevent the “blip” effect from students flipping fingers. The middle finger fingering for chalumeau B natural and clarion F sharp can be found in Figures 9.1 and 9.2. The chromatic fingering for chalumeau B natural and clarion F sharp can be found in Figures 9.3 and 9.4.

Figure 9.1. Chalumeau B Fingering

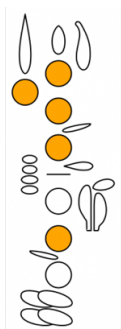


Figure 9.2. Clarion F# Fingering

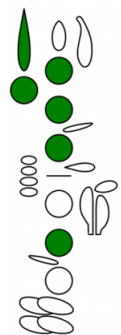


Figure 9.3. Chalumeau B Chromatic Fingering

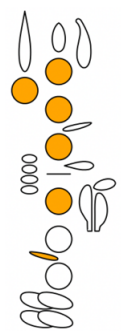
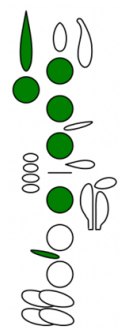




Figure 9.4. Clarion F# Chromatic Fingering



Another sliver key chromatic fingering can be utilized for the chalumeau Eb and clarion Bb. The common fingering for chalumeau Eb and clarion Bb can be seen in Figures 9.5 and 9.6. The chromatic fingerings for Eb and Bb can be seen in Figures 9.7 and 9.8.

Figure 9.5. Chalumeau Eb Fingering

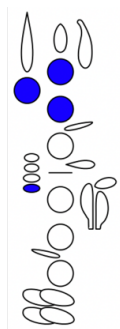


Figure 9.6. Clarion Bb Fingering

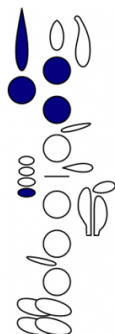


Figure 9.7. Chalumeau Eb Chromatic Fingering

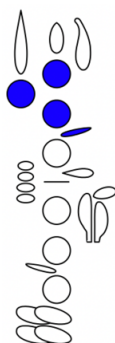


Figure 9.8. Clarion Bb Chromatic Fingering



Flipping fingers can also be a common problem in technique when the student has to play F to F# or vice versa in the throat tones. Instead of the student playing F# with just the index finger of the left hand, they can finger F and add the bottom two side keys on the right side using the right index finger (the bottom side key is already a suggested contact point for the index finger). The standard fingering for throat tone F# can be seen in Figure 9.9. The chromatic fingering for throat tone F# can be seen in Figure 9.10.

Figure 9.9. Throat Tone F# Fingering



Figure 9.10. Throat Tone F# Chromatic Fingering



## *Pinky Keys*

The pinky keys of the clarinet are often the most confusing for students and band directors alike to decipher. With one exception, the pinky keys found on the stems for the left pinky and in the bottom square for the right pinky are designed so that there is a parallel key for each note. The one exception is the Ab/Eb key. The chalumeau Ab and clarion Eb can only be played with the first pinky key in the right hand. These fingerings can be found in Figures 9.11 and 9.12.

Figure 9.11. Chalumeau Ab Fingering

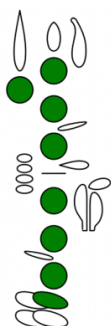


Figure 9.12. Clarion Eb Fingering



The other sets of notes: chalumeau E/clarion B, chalumeau F/clarion C, chalumeau F#/clarion C# all have a key that can be used with the left pinky as well as a key that can be used with the right pinky. The option of left or right pinky keys are present to prevent the need to slide from note to note but instead be able to alternate pinky keys to allow for easier and cleaner technique. The different pinky fingerings for each set can be found in the figures below.

Figure 9.13. Chalumeau E Left Hand Fingering



Figure 9.14. Chalumeau E Right Hand Fingering



Figure 9.15. Clarion B Left Hand Fingering

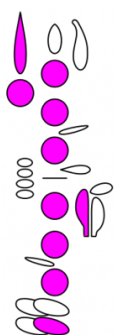


Figure 9.16. Clarion B Right Hand Fingering

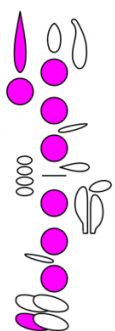


Figure 9.17. Chalumeau F Left Hand Fingering

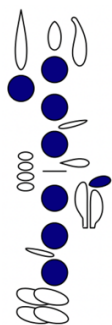


Figure 9.18. Chalumeau F Right Hand Fingering

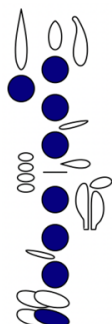


Figure 9.19. Clarion C Left Hand Fingering

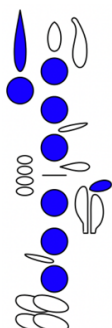


Figure 9.20. Clarion C Right Hand Fingering

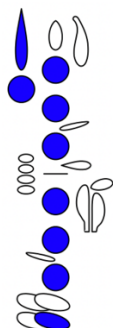


Figure 9.21. Chalumeau F# Left Hand Fingering

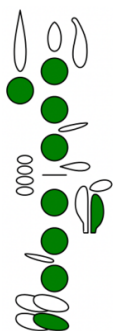


Figure 9.22. Chalumeau F# Right Hand Fingering

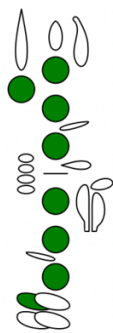




Figure 9.23. Clarion C# Left Hand Fingering

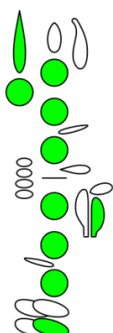
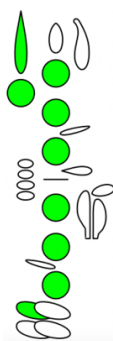


Figure 9.24. Clarion C# Right Hand Fingering



### *Shading/Resonance Fingerings*

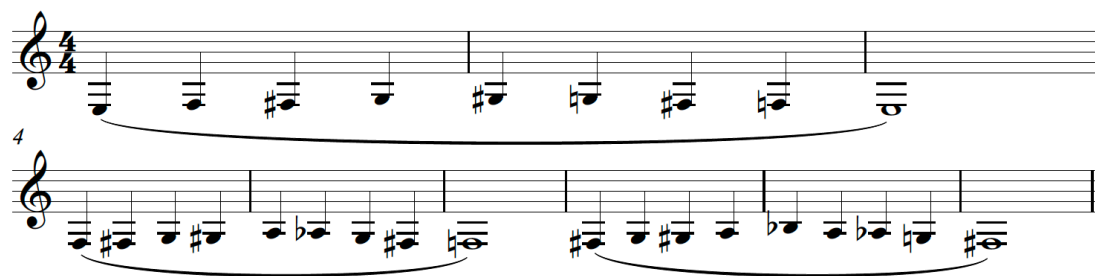
Crossing the break (going from the throat tones to the clarion register) can be a very intimidating developmental milestone for clarinet students. A significant aspect of this difficulty is that the throat tones are played completely open, while crossing the break involves closing every tone hole. In other words, it goes from short tube to long tube. This involves up to nine fingers having to move at once.

To make this process significantly easier, students can utilize shading, or resonance fingerings. These are fingerings that involve closing additional tone holes when playing the throat tones, mostly in the right hand. These resonance fingerings will be discussed further in Chapter 10. However, in terms of assisting with technique, have the students keep the fingers of their right hand down in addition to the right hand C pinky key to allow for easier facility when attempting to cross the break.

### *Exercises to Assist Your Students*

*Chromatic Waves*, Figure 9.25, is an exercise designed for all levels of students. The aim of the exercise is to better acquaint the clarinet student with the pinky keys. The exercise revolves around the chromatic scale and requires the student to alternate left and right pinky keys. It is important to note that the chalumeau E must be played with the left pinky, the F is played with the right pinky, and the F# must be then played with the left pinky. This is to facilitate the Ab/G# which is only available in the right hand set of pinky keys. Additionally, the fingering for chalumeau E (Figure 9.13) already has the right hand F key closed. This means the left pinky simply lifts off of the E key when moving to F rather than a swap of the pinky fingers. *Chromatic Waves* is in a range that is very achievable for developing students and also provides practice for reaching the pinky keys. However, the tempo of *Chromatic Waves* can be increased to provide a challenge for advancing students.

Figure 9.25. Chromatic Waves



The *Just a Sliver* Exercise, Figure 9.26, focuses on the student getting more comfortable with the chromatic sliver fingerings. This exercise, like *Chromatic Waves*, is written in a range that is comfortable for a student at any level but allows for the technique to be enhanced by playing the exercise at a faster tempo.

Figure 9.26. Just a Sliver



### *Other Recommended Sources for Student Development*

#### **Clarinet Warm-Ups: Materials for the Contemporary Clarinetist by Kelly Burke**

Published by Dorn Publications, Inc.

This warm-up book, written by Kelly Burke, retired faculty from University of North Carolina at Greensboro, is an invaluable resource for band directors to have for their students. The section entitled, “Technical Warm-Ups” on page 27 begins a series of various exercises that isolate specific finger patterns to assist with technique development. The “Adjacent Finger Motion” and “Problem Intervals” exercises isolate specific intervals by augmenting the practice rhythm with each new measure. The next section, “196 Finger Exercises” have one measure finger patterns that can be repeated. These exercises isolate using the right hand, the left hand, and crossing the break. Although some of the exercises within the “Technical Warm-Ups” are for the advancing student, there are many exercises within the section that are approachable for the developing student as well. The exercises also include tips and instructions from Dr. Burke.

#### **Clarinet Fundamentals 2: Systematic Fingering Course by Reiner Wehle**

ISBN: 978-3-7957-5805-9

This method book is the second installment of a three part collection by Reiner Wehle, husband to famous clarinetist, Sabine Meyer, and a distinguished clarinetist in his own right. The method book is in both English and German throughout and is admittedly sometimes confusing as he does not always write out every exercise. However, the exercises found in section 1 through 5 (p. 6-12)

are great isolation exercises for building technique. Although written in sixteenth notes, these exercises don't extend very high in the range so as long as the student is comfortable playing in the low chalumeau and up to the middle of the clarion register, these exercises are perfectly suitable for them.

### **Finger Food by Eric P. Mandat**

Published by Cirrus Music

*Finger Food*, written by Eric Mandat, composer and clarinet professor at Southern Illinois University, is a collection of etudes in which each etude focuses on isolating one area of technique. The etudes are either entirely focused on the development of the right hand, left hand, pinky keys, or the side Eb key. This etude book is for the advancing student but provides etudes written for clarinetists by a clarinetist, with quirky titles as an added bonus. The etude book includes a preface with instructions on how to practice the etudes written by Mandat.

### *Links to Instructional Videos for Students*

Information found in this chapter:

<https://www.youtube.com/watch?v=qR9BA-9lQ78&feature=youtu.be>

“Just a Sliver” Exercise:

<https://www.youtube.com/watch?v=UZiV0T2MG8Q&feature=youtu.be>

“Chromatic Waves” Exercise:

<https://www.youtube.com/watch?v=0RQo4K08LKM&feature=youtu.be>

## CHAPTER TEN

### Intonation

Intonation, for clarinet students in particular, can be a very difficult fundamental skill to teach. The embouchure does not change for each note and the student generally does not have to audiate in any way to play a correct partial, they can simply place fingers where they need to go. Confusion can thus come about when mentioning that a note a clarinet player is playing is out of tune despite them using an accurate fingering.

#### *General Instrument Pitch Tendencies*

Once a clarinet student is at the point in their development where intonation can be a topic of discussion, perhaps once a stable and consistent embouchure is formed while the student is correctly articulating, a great place to start would be by informing the student of the general tendencies of the instrument itself.

The different registers of the clarinet, seen in Figure 6.1, contain varied pitch tendencies. The low end of the chalumeau register, E and F, have a tendency to be flat. As we go up the chalumeau register, the pitch does as well until throat tone F and F# when the pitch tends to be flat again. The throat tone

register can vary depending on the level of the student. Beginning students will be flat in this register but as they develop the pitch tendency is sharp. As we cross the break, B, C, and C# tend to be sharp while the following E through G tend to be flat. The remaining notes of the clarion up to C tend to be sharp. The altissimo, like the throat tones, can vary depending on the level on the student. Students just beginning to work on the altissimo register will have a tendency to be flat as they attempt to use enough air and voice correctly. Advanced students will have a tendency to be sharp as they will apply more embouchure pressure to have the notes speak clearly.<sup>18</sup>

### *Assisting with Natural Instrument Pitch Tendencies*

Although the clarinet has different pitch tendencies, even within the same register, there are a number of concepts that can be applied to assist clarinet students to develop better intonation.

As mentioned above, the throat tones are a register of the clarinet that can vary in pitch depending on the level of the student. However, this register is also infamous for its dull tone quality and inability to homogenously blend with the other registers of the clarinet. To assist with these problems, additional tone holes can be covered while playing these throat tones (G, G#, A, Bb). These fingerings are referred to as “vent” or “resonance” fingerings. These fingerings

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<sup>18</sup> Frederick W. Westphal, *Guide to Teaching Woodwinds*, 5<sup>th</sup> ed. (Dubuque, Iowa: Wm. C. Brown Publishers, 1990), 74.



assist the throat tones by lowering the pitch and, as the name would imply, adding more resonance to this register.

Unfortunately there is not a “catch-all” for these fingerings, they will vary student to student depending on the embouchure, instrument, and mouthpiece. The director and student can discover which combination of added fingers will work best but a starting point would involve closing the three tone holes of the right hand and including the C key in the right pinky. From here, students can try various combinations that balance good intonation and a beautiful, resonant sound. Resonance fingerings are also quite helpful in enabling students to cross the break as they already have some of the right hand fingers in place.

Intonation in the altissimo register can also be quite difficult to develop. However, there are a number of different fingerings that can be utilized in various contexts to assist the clarinet student. As a starting point, every note above C# in the altissimo register should be played with the “vent” key which is the right hand pinky Eb key. Adding this key in the altissimo adds resonance to the notes in addition to raising the pitch. Additionally, a number of altissimo notes have various fingerings that can be strategically used in different scenarios.

The standard altissimo Eb fingering is played with the right index finger and the right hand sliver key as seen in Figure 10.1. This fingering, also known as the “fork” fingering provides better intonation and stability as well as a clear sound. An alternative fingering for altissimo Eb utilizes the middle finger of the right hand, Figure 10.2. Although this fingering is an option for the student to use in faster technical passages, it is more resistant and not as clear.

Figure 10.1. Altissimo Eb Standard/“Fork” Fingering

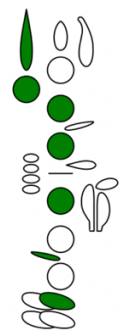
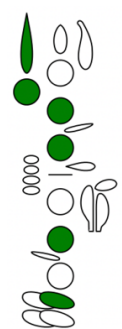
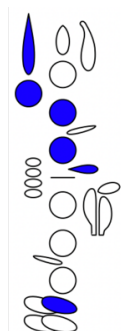


Figure 10.2. Altissimo Eb Alternative Fingering



Altissimo F has three common fingerings with different advantages and disadvantages. The first fingering is the one most frequently used and is considered the “standard” fingering. This fingering, Figure 10.3, can be resistant, especially for students first getting acquainted with the altissimo register, and in fact, is simply flat on many instruments.

Figure 10.3. Altissimo F Standard Fingering



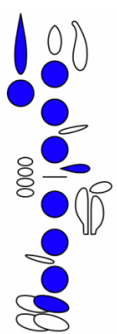
An alternative fingering for this F is to simply add the sliver key in the right hand, Figure 10.4. Adding the sliver helps to raise the pitch and provides more resonance and clarity to the note. However, this sliver fingering can take some getting used to because it is not very idiomatic and the rings around the tone holes should not be pressed down in the process. This means that the player must only press the edge of the sliver key closest to the post on the clarinet, which will take some practice.

Figure 10.4. Altissimo F Sliver Fingering



A third fingering option to assist with intonation when playing altissimo F is the “long” F, Figure 10.5. This fingering involves having more fingers down, closing more of the clarinet and using more tube of the instrument. This assists in raising the pitch and most importantly, the longer amount of tube being used allows the F to be more stable and speak with greater ease. The director and student should note that this fingering can be difficult to finger in technical passages and has a tendency to be extremely sharp as students are accustomed to “biting” to have the regular altissimo F fingering speak. The “long” F will require the student to have slightly different voicing.

Figure 10.5. Altissimo F “Long” Fingering



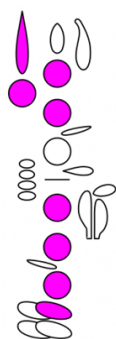
Altissimo F# provides similar problems as F. The standard F# fingering, Figure 10.6, uses very little tube of the clarinet and is very resistant, making it difficult to play and flat in pitch.

Figure 10.6. Altissimo F# Standard Fingering



Altissimo F# also has an alternative “long” fingering, Figure 10.7. As seen with the long F fingering, this alternative, which uses significantly more tube of the clarinet, speaks significantly easier but can be sharp in pitch as the student is often accustomed to “biting” in order to have the regular F# fingering speak. It will also require slightly different voicing.

Figure 10.7. Altissimo F# “Long” Fingering



Altissimo G is infamously known for having an abundance of fingering options. The most frequently taught initial fingering for G, Figure 10.8, is convenient to use when coming from altissimo F#. However, it is not particularly stable, is slightly resistant, and thus tends to be sharp.

Figure 10.8. Altissimo G Standard Fingering



The first alternative fingering is the chromatic G fingering, Figure 10.9. This fingering should be utilized particularly when playing a chromatic sequence but can also be extremely useful in technical passages that neighbor altissimo F#. It can also be played with the side Bb key instead of the sliver.

Figure 10.9. Altissimo G Chromatic Fingering



A G fingering that speaks very clearly is referred to as “overblown B,”

Figure 10.10. As the name would suggest, the student will finger a clarion B but add the right hand Eb pinky key and push the air through to have it speak the higher partial, resulting in a G. This fingering speaks clearly and has fairly good intonation. Unfortunately, because it is an overblown partial, it is not convenient to use in extremely technical passages.

Figure 10.10. Altissimo G “Overblown B” Fingering



The last altissimo G fingering that will be discussed is the “1-3 1-3” fingering, Figure 10.11. This name comes from the fingers that are used for this particular G fingering. Although the fingering will take time to get used to, it is one that speaks clearly, is reliable, and can be played in tune. The awkwardness of the fingering, however, does make it difficult to incorporate into some technical passages.

Figure 10.11. Altissimo G “1-3 1-3” Fingering



### *Reeds and Intonation*

The reed can prove to be a common source of intonation problems for clarinet students. A reed that is too soft does not provide enough support and will result in the intonation being flat. More frequently seen are students playing reeds that are too resistant.<sup>19</sup> The extra pressure the student applies in order to fight against the reed will result in the intonation being sharp.

<sup>19</sup> Daniel Bonade, “Playing In Tune,” *The Clarinet*, Winter 1954, <http://clarinet.org/wp-content/uploads/2018/02/Bonade-Playing-in-Tune.pdf>.



### *Dynamics and Intonation*

The intonation of the clarinet can be greatly impacted by the dynamic level that is being played. The relationship between dynamics and intonation is in fact an inverse relationship. As the volume increases, the pitch lowers. As the volume decreases, the pitch rises. This means that playing at a fortissimo dynamic will result in the pitch being flatter and playing at a pianissimo dynamic level will result in the pitch being sharper.<sup>20</sup> This occurs because when playing at a forte dynamic, the clarinet student naturally releases some of the embouchure pressure and opens up the throat. This slight release drops the pitch.

Opposingly, when playing at a softer dynamic level, the clarinet student will instinctively pinch the embouchure and close the throat in an attempt to provide less air for the softer dynamic. This causes the pitch to rise. This tendency is the opposite of some other woodwind instruments. It is important for directors and clarinet students alike to be aware of this relationship to assist in avoiding the pitfalls that dynamics might add to the already naturally occurring intonation problems of the clarinet.

### *Temperature and Intonation*

The temperature of the playing environment can greatly effect the intonation of the instrument. The relationship between temperature and pitch for

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<sup>20</sup> Westphal, *Guide to Teaching Woodwinds*, 5<sup>th</sup> ed., 75.

clarinets is a congruent relationship. As the temperature drops and gets colder, the pitch does as well and becomes flat. When the temperature rises, the pitch of the clarinet does as well and becomes sharp. When playing in various settings, it is important for clarinet students to know and understand how the surrounding environment will affect their playing.

### *Exercises to Assist Your Students*

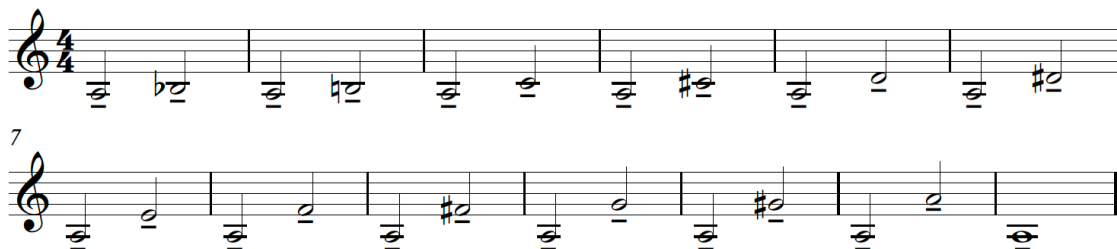
The *Leaps and Bounds* Exercise, Figure 10.12, is designed to assist advancing students develop intonation. The goal of this exercise is not for speed of technique but to help train the student's ear using the octave interval. It is recommended the exercise be practiced at a comfortable tempo and dynamic level, focusing on the relative pitch of the octaves and having an even tone across the registers. The student should be able to play the exercise with an even sound that is both objectively in tune, and in tune relative to the pitches within each octave sequence.

Figure 10.12. Leaps and Bounds



The *Developing Intonation Exercise*, Figure 10.13, is designed for the developing student who may not be able to cross the break. The student should focus on having an even sound throughout the exercise but should also be listening for the relative pitch of the increasing intervals. Just like in *Leaps and Bounds*, Figure 10.12, the goal is to develop the ear, not to facilitate technique. The exercise should be practiced at a comfortable tempo and dynamic.

Figure 10.13. Developing Intonation Exercise



### *Other Recommended Sources for Student Development*

#### **Clarinet Warm-Ups: Materials for the Contemporary Clarinetist by Kelly Burke**

Published by Dorn Publications, Inc.

This warm-up book, written by Kelly Burke, retired faculty from University of North Carolina at Greensboro, is an invaluable resource for band directors to have for their students. When utilizing this resource to address the development of intonation, the “Intonation Studies” found on pages 25 and 26 are excellent. Due to the range of these studies, they are recommended for advancing students. However, the exercises can most definitely be adapted for developing students by eliminating the notes in the altissimo or skipping some of the lines in the exercises. The exercises are preceded by instructions and tip from Dr. Burke.

### **Clarinet Fundamentals 3: Intonation by Reiner Wehle**

ISBN: 978-3-7957-5806-6

This method book is the third installment of a three part collection by Reiner Wehle, husband to famous clarinetist, Sabine Meyer, and a distinguished clarinetist in his own right. It is in both English and German throughout and is admittedly sometimes confusing as he does not always write out every exercise. However, this book is really great for developing intonation because it involves having the students play with one another. Every exercise has at least two staves for the students to play intervals together. This kind of practice will help immensely with intonation as well as with learning to blend together. The book begins with various slurred intervals for the students to practice and eventually incorporates various articulations. This method book also contains examples from actual repertoire to assist the students in developing intonation in context.

### **Method for Clarinet by H. Lazarus Part I revised by Simeon Bellison**

ISBN: 0-8258-0206-7

Henry Lazarus was one of the most prominent English clarinet players and pedagogues of the 19<sup>th</sup> century. His method book for clarinet is a staple in clarinet pedagogy and is a valuable resource for both students and band directors. The exercises found under the “Diatonic Scale Up to Second C (Clarion)” between pages 31 and 34 provide great intonation practice for students at any stage of their development. The exercises revolve around various intervals, starting with seconds and extending up to twelfths. Although not

written, the student could slur any of these exercises to isolate the focus on intonation rather than worry about articulation as well. This method also contains a large number of duets for students to practice playing together or with the director.

### **Tone, Technique & Staccato from the Avrahm Galper Clarinet Series**

ISBN: 978-078-669-618-5

*Tone, Technique & Staccato* by Avrahm Galper, former principal clarinetist of the Toronto Symphony Orchestra and pedagogue, is a method book that can be utilized for the duration of a student's clarinet studies from early development through advanced playing. The exercises found under the heading, "Transition to the Upper Register" between pages 16 and 23 can be great for developing intonation in various levels of students. Some of the exercises are more like etudes and are certainly intended for more advanced students. However, there are a number of exercises that are excellent for developing students. All of the exercises are accompanied with very clear and detailed instructions from Galper.

#### *Links to Instructional Videos for Students*

Information found in this chapter:

<https://www.youtube.com/watch?v=sSz6xwiC-74&feature=youtu.be>

“Leaps and Bounds” Exercise:

<https://www.youtube.com/watch?v=1Rgh5tWJITl&feature=youtu.be>

“Developing Intonation” Exercise:

<https://www.youtube.com/watch?v=mTcfwyYCi5c&feature=youtu.be>

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APPENDIX A  
IRB APPROVAL FORM



## APPROVAL

November 4, 2018

Margaret Donaghue  
mdonaghue@miami.edu

Dear Dr. Margaret Donaghue:

On 11/4/2018, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	Setting Your Clarinet Students Up for Success: A Clarinet Fundamentals Guide for Band Directors
Investigator:	Margaret Donaghue
IRB ID:	20180987
Funding:	None
Documents Reviewed:	<ul style="list-style-type: none"> <li>•Clarinet Fundamentals Survey Consent Letter</li> <li>•Fundamentals Guide for Band Directors Protocol</li> </ul>

The IRB approved the study on 11/4/2018.

Attached are stamped approved consent documents. Use copies of these documents to document consent. *NOTE: Translations of IRB approved study documents, including informed consent documents, into languages other than English must be submitted to HSRO for approval prior to use.*

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. If your study indicates JHS as a performance site, as the PI, you must ensure that you have been granted permission by the JHS Clinical Research Review Committee (CRRC) prior to commencing study activities at JHS. Such approval is reflected by receipt of a JHS CRRC Approval Letter. If you have any questions regarding this process, please contact the JHS Office of Research at 305-585-7226.

Should you have any questions, please contact: Vivienne Carrasco, Sr. IRB Regulatory Analyst, (phone: 305-243-6713; email: vcarrasco@med.miami.edu)

Sincerely,

*[This is a representation of an electronic record  
that was signed electronically and this page is  
the manifestation of the electronic signature]*

Charles S. Carver, Ph.D.  
Chair, Social and Behavioral Sciences IRB

APPENDIX B  
CONSENT FORM FOR BAND DIRECTORS

## EMAIL CONSENT SCRIPT

### **Setting Your Clarinet Students Up for Success: A Clarinet Fundamentals Guide for Band Directors**

Dear madam/sir:

My name is Lee Seidner. I am currently enrolled as a Doctor of Musical Arts student in the Frost School of Music at the University of Miami. I am co-investigating a research study entitled, *Setting Your Clarinet Students Up for Success: A Clarinet Fundamentals Guide for Band Directors*. I am reaching out to you as you are a member of the Florida Bandmasters Association.

We are asking for you to take part in a research study in which you will self-assess your knowledge and the education you received on clarinet fundamentals. Based on the results of this study, we will create a resource guide for band directors that will help them be more prepared to teach their clarinet students. You will be asked to complete a brief online survey. This will take about seven minutes of your time. There are no risks associated with participation in this study. All data generated in this study is anonymous. Your name will not be asked as part of the research. All of the papers pertaining to the study will be kept in a locked file cabinet, and all electronic data will be stored in computer files. Only people who are directly involved with the project will have access to those records. When the project is finished and results are reported, no individual will be identified in any way.

Although you may not directly benefit from this study, the information gained may assist researchers as well as other music educators in gaining a better understanding of what deficiencies exist in knowledge of clarinet fundamentals after undergraduate music education degrees and to potentially find solutions to help improve these deficiencies.

Being in this study is completely voluntary. You will not be paid for participating in this survey. You can decline to participate and you can stop your participation at any time, if you wish to do so, without any negative consequence to you. You may choose not to answer any survey questions for any reason.

By answering the survey questions online, you consent to participate in this research project. If you agree, please click the link below and you will be directed to the survey questions.

<https://www.surveymonkey.com/r/clarinetfundamentalssurvey>

Should you have questions or about this research, you can contact Margaret Donaghue at [mdonaghue@miami.edu](mailto:mdonaghue@miami.edu). If you have any questions about your rights as a research participant, you may contact the University of Miami Human Subjects Research Office at 305-243-3195.

Please print or save this screen if you want to be able to access the information later.



## APPENDIX C

### BAND DIRECTOR KNOWLEDGE OF CLARINET FUNDAMENTALS SURVEY

### Band Director Knowledge of Clarinet Fundamentals

1. How many years have you been an active band director?

2. What is your primary instrument?

3. Which grade levels do you teach? Please select all that apply.

☐ Middle/Junior High School

☐ High School

4. Reflecting on your **first year** as a band director, please rate the comfort level you had in addressing and teaching the following clarinet techniques with your students:

	Not at all comfortable	Not very comfortable	Somewhat comfortable	Very Comfortable	Extremely Comfortable
Embouchure Formation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tone Production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"The Break"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Altissimo/Voicing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Articulation/Tonguing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hand Position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finger Technique	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alternate Fingerings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intonation (Natural Tendencies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tuning (Adjustment of Instrument)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reeds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Equipment (Mouthpieces, Ligatures, Barrels, Bells)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Please reflect on the comfort level you **currently** have in addressing and teaching the following clarinet techniques with your students:

	Not at all comfortable	Not very comfortable	Somewhat comfortable	Very comfortable	Extremely comfortable
Embouchure Formation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tone Production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
"The Break"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Altissimo/Voicing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Articulation/Tonguing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hand Position	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Finger Technique	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternate Fingerings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intonation (Natural Tendencies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tuning (Adjustment of Instrument)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment (Mouthpieces, Ligatures, Barrels, Bells)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Do you feel that your undergraduate degree adequately prepared you to successfully guide and instruct your clarinet players in the fundamental skills listed above?

☐ Yes

☐ No

7. Have you taken any academic or professional development courses that have increased your knowledge about any of the clarinet fundamentals listed above since beginning your career as a band director?

☐ Yes

☐ No

8. How would you describe your comfort level in guiding your clarinet students in selection and care of reeds?

Not at all comfortable (0-32)

Comfortable (33-66)

Extremely Comfortable (67-100)

9. How would you describe your comfort level in guiding your clarinet students in instrument selection and maintenance?

Not at all comfortable (0-32)

Comfortable (33-66)

Extremely comfortable (67-100)

|

10. How would you describe your comfort level in guiding your clarinet students in selecting an appropriate mouthpiece?

Not at all comfortable (0-32)

Comfortable (33-66)

Extremely comfortable (67-100)

|

11. What resources do you currently know of that could assist your students who play clarinet? This may include texts, method books, and/or online resources.

12. Rank the ability of your clarinet students on the following set of skills with 1 representing the strongest and 7 representing the weakest.

Embouchure Formation

Tone Production

Articulation/Tonguing

Navigating "The Break"

Altissimo/Voicing

Finger Technique (including hand position and knowledge of alternate fingerings)

Tuning & Intonation

13. What do you feel are the biggest challenges that your clarinet students face?

14. Are there any other concerns in reference to the clarinet and clarinet playing that you felt were not covered in this survey?