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BREATHING INSTRUCTION OF SUCCESSFUL HIGH SCHOOL
MARCHING BAND DIRECTORS

By

Michael A. Alsop
B.M.E., DePauw University, 2010

A Thesis
Submitted to the Faculty of the
School of Music of the University of Louisville
in Partial Fulfillment of the Requirements
for the Degree of

Master of Music Education
in Music Education

School of Music
University of Louisville
Louisville, Kentucky

May 2018

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A Thesis Approved on

April 20, 2018

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ABSTRACT

BREATHING INSTRUCTION OF SUCCESSFUL HIGH SCHOOL MARCHING BAND DIRECTORS

Michael A. Alsop

April 20, 2018

The breath is considered one of the most important factors of playing a wind instrument because it affects nearly every aspect of playing. The purpose of this study was to examine the breathing instruction of successful high school marching band directors. The researcher sought to learn about how often proper breathing is taught, what methods are most commonly used, perceived benefits for the marching members, and potential negative aspects or consequences of breathing instruction.

Two-hundred-and-thirteen successful marching band directors were invited to complete a survey consisting of multiple choice, Likert scale, and open-ended questions. Seventy-six directors completed the survey. It was found that at least a quarter of the qualifying directors teach about proper breathing in every marching band rehearsal, usually in small increments of time (5-10 minutes). *The Breathing Gym* is by far the most popular resource for instructional techniques. Directors that utilize breathing instruction do so because they see a large variety of potential benefits for their students, and there seem to be few challenges/drawbacks commonly recognized among the surveyed directors.

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CHAPTER 1

INTRODUCTION

The Importance of Proper Breathing

The breath is considered one of the most important factors of playing a wind instrument because it affects nearly every aspect of playing. Many distinguished players and teachers believe that good breathing correlates with good tone quality, as well as contributes to the consistency of sound, range, dynamics, articulation, intonation, and stamina (Bailey, 1992; Boren, 2005; Johnson, 1981; Wright, 2011). According to John Drew, Professor of Trombone at Florida State University, breathing is the most important technical and physical aspect of playing. He says, “It’s 80%, at least, of what we do” (Buckmaster, 2008). Robert Aitken, Canadian recording artist, international soloist, and scholar, explained in a master class that flute playing is 90% air (Gillis, 2009). For Ely and Van Deuren (2009), air has a greater effect on performance proficiency than any other factor.

Instrumental teachers generally agree that proper breathing is important. However, there is little consensus on what breathing technique is best, and whether or not it should be taught at all. Richard Deane highlights that “There are perhaps as many breathing methods as there are players” (Deane, 2009, p. 16). For some teachers it is important that their students understand anatomy and movements of the body, and then apply that information to their playing. According to David Vining, “A detailed understanding of the movements of breathing provides a strong movement foundation,

enabling us to breathe free of tension and to create the resonance we seek” (Vining, 2009, p. ii). Others prefer their students to seek a desired sound and focus less on anatomy.

Arnold Jacobs was a proponent of this method, and once gave the following analogy:

When a race driver is in the pits, it is time to analyze the mechanics of the car. When out on the race track, it is time to only drive. During a concert, it is not the time for a musician to analyze the mechanics of breathing, it is time to perform (Frederiksen, 1996, p. 99).

Because some teachers see breathing as a natural human action, they do not feel the need to educate students about it. However, Arnold Jacobs pointed out the seemingly obvious: breathing to play an instrument is different than normal everyday breathing (Frederiksen, 1996). Despite the obvious, many teachers do not instruct their students on this fundamental aspect of playing. Johnson (2010) has found that students who did not receive proper breathing instruction early in their playing years tend to under-breathe when they arrive at the college level. Gaunt (2004) and Porter (2011) tell personal anecdotes of receiving little-to-no breathing instruction, or questionable instruction in their formative years as musicians. By not teaching students how to properly breathe, they may develop incorrect habits, which could hinder the ability to produce quality sounds, and may take years of focused practice to correct in the future.

Forms of Breathing Instruction

Breathing instruction comes in one of three forms: 1) teaching respiratory anatomy, 2) using analogies that focus students on the product rather than the process, and 3) breathing exercises away from the instrument that help students build proper “muscle memory.” Although breathing exercises seem like a more recent trend with the

development and proliferation of *The Breathing Gym*, practicing breathing away from the instrument was happening as early as the 1970s. Denis Wick encouraged breathing exercises in his method book titled *Trombone Technique* (1971):

It has even been suggested, quite rightly, in my opinion, that it is better to try to increase the lung capacity away from the instrument. While walking at a steady speed, the breath should be inhaled over six or seven paces, and exhaled over a similar time. Both inhalation and exhalation can be increased by one or two paces until the improvement has doubled or tripled the available lung capacity. (p. 35-36)

While either Wick's conceptual understanding is incorrect, or he chose poor terminology (lung capacity is determined by anatomy and cannot be increased), the concept of improving lung function away from the instrument should be gleaned from his recommendation.

The authors of *The Breathing Gym*, Sam Pilafian and Patrick Sheridan, reiterate how playing a wind instrument requires much more of our lung capacity than we normally use, and that generating the needed airflow is a skill that should be practiced. *The Breathing Gym* is a method designed to help musicians improve the control and efficiency of their breathing. Five types of exercises are laid out in the book: (1) stretches, (2) flow studies, (3) therapies, (4) strength and flexibility, and (5) breathing for the brain. "The exercises in *The Breathing Gym* can be used as part of a warm-up routine, as a mid-rehearsal change of pace, or to address specific issues such as dynamics, articulation and phrasing in a certain piece of music. The exercises can also help produce a calm, focused atmosphere before a performance or competition" (Pilafian, 2001, p. 5). Since its publication in 2001, many of the *Breathing Gym* exercises have become a regular part of the teaching toolbox of band directors across the country.

A handful of scientific studies have focused on the effects of breathing instruction in the last twenty years. While many of the results prove inconclusive or require further inquiry, there are some positive effects worth noting (see literature review). The majority of published information on breathing, however, comes from non-peer reviewed articles by applied music teachers sharing instructional techniques, analyses of method books, and anecdotal evidence provided by ensemble directors in books and trade magazines. Very few, if any, of these resources discuss breathing pedagogy for marching bands.

Breathing Instruction for Marching Band

While marching band's global popularity has increased over the last few decades (one can readily find videos of competitive marching bands and drum and bugle corps from countries in Europe and East Asia via a quick search with any internet search engine), the activity began primarily as an American phenomenon associated with high school and college football (Dunnigan, 2007). Despite the fact that many marching band performances are designed for entertainment purposes (half-time shows, pep rallies, parades, etc.), the musical goals and expectations for the ensemble should remain similar to the concert band. "Marching (band) should complement other aspects of the music program and develop musicianship as much as the concert and jazz bands. Musical standards should not change during marching band season" (Dunnigan, 2007, p. 2).

If the musical standards are to remain the same, directors have a responsibility to teach the same components of musicianship as with their concert ensembles: tone quality, intonation, balance and blend, timing, etc. However, the environments in which marching bands perform can create a distinctive set of performance challenges. Performing outside,

often standing in formations that create awkward listening environments, can challenge students' abilities to blend within a section, or to balance to other sections located on the far side of the field. Extreme temperatures can create a variety of intonation issues.

Perhaps the biggest challenge is that of playing and moving simultaneously.

Because of the athleticism involved with playing and moving at the same time, breath control becomes paramount to the ability to contribute to the ensemble sound. In 2005, Jeff Edwards monitored the breathing and heart rate of a drumline member of the Cavaliers Drum & Bugle Corps in rehearsal. He found that, in performance, the drummer's heart rate reached 200 beats per minute, and his oxygen intake got as high as thirteen times his normal resting metabolic rate. His oxygen consumption during a run-through was consistent with that of a well-trained runner in the middle of a marathon (goders22, 2007).

Purpose of the Study and Research Questions

This study seeks to learn more about the breathing instruction of successful high school marching band directors. By surveying successful directors from across the country, the researcher hopes to discover how often proper breathing is taught, what methods are most commonly used, perceived benefits for the marching members, and potential negative aspects or consequences of breathing instruction. Research questions driving my inquiry include:

- (1) How much time do successful marching band directors spend teaching breathing fundamentals?
- (2) What types of exercises or methods do successful marching band directors use to teach proper breathing techniques?
- (3) What do successful marching band directors perceive as the value of teaching breathing techniques?

(4) Are there any challenges or drawbacks consistently faced across the profession when teaching breathing techniques?

CHAPTER 2

LITERATURE REVIEW

The purpose of this study is to explore breathing instruction used by successful high school marching band directors. The following review examines research into demonstrated effects of breathing instruction, band director attitudes toward breathing instruction, and how much time is actually spent teaching breathing.

Research Studies Showing the Effects of Breathing Instruction

Sehmann performed a study investigating the effects of breathing instruction on elementary brass instrumentalists, specifically aimed at the subjects' method of breathing and lung capacity. Sixty-one brass players were divided into an experimental and a control group. The experimental group received between five to seven minutes of breathing instruction once a week for 16 weeks. Psychomotor instruction in these lessons included "parts of a sequence used with college-level brass players, practice with breathing tubes, instructional aids used with schoolchildren in a previous study on breathing, recommended exercises for improving breathing, and researcher-devised instruction suggested by scientific respiration research" (Sehmann, 2000, p. 141). The researcher completed pretests and posttests that consisted of three measures of breathing and three measures of performance. It was found that the experimental group showed significant improvement in abdominal displacement (evidence of diaphragmatic breathing), but there was no significant difference in lung capacity of thoracic

displacement compared to the control group. In the performance measures, a significant difference was measured in range and duration, but not tone quality. Sehmman concluded that “Brass teachers should be focusing on teaching breathing skills to their students to obtain the most growth in their performance abilities” (Sehmman, 2000, p. 148).

Davenport, Martin, and Sapienza conducted an experiment with 40 high school band students to see if expiratory muscles could be strengthened using a high intensity, low repetition inspiratory training method. The experimental group participated in training that lasted 10 minutes a day for 10 days over two weeks. Each day’s training consisted of four sets of six training breaths using a spring-loaded pressure relief valve set to 75% of each individual’s maximum expiratory pressure (MEP), which had been measured in a pretest. This is relevant to instrumentalists because expiration occurs as a result of one of two forces: 1) When pressure inside the lungs is greater than atmospheric pressure, the lungs release air to achieve homeostasis, or 2) the contraction of expiratory muscles (the intercostals and abdominals) can force air out more rapidly to generate the pressures needed to perform certain pitches at certain dynamics. The posttest results indicated significant increases in the MEP of both male and female subjects in the experimental group as compared to minimal increases of MEP in the control group. Through this training program the researchers were able to “actively recruit the expiratory muscles and target their use at a maximal level” (Davenport, Martin, and Sapienza, 2002, p. 500).

Cannon designed a project that investigated the effects of two breathing exercises on flute players. Twenty-three subjects of various ages and experience levels were tested on their volume, duration, tone quality, and peak flow, with the two primary dependent

variables being duration and tone quality. Participants were instructed in the use of two breathing exercises: “Breath upon breath,” a deep breathing exercise that involves adding air to already full lungs, and “extended breath control,” which involves repetitions of breathing in, sustaining the air, and exhaling, all with an assigned count structure at a prescribed metronome marking. Participants were to perform these exercises once a day for three days a week and record their work in a journal. They returned to be tested after three weeks (mid-term test) and six weeks (posttest). The researcher found “significant improvement in subjects’ ability to sustain the musical examples during the course of measurement, with the Advanced [sic] group showing the most improvement” (Cannon, 2005, p. ii-iii).

Gaunt took a different approach with her oboe studio at the Guildhall School of Music and Drama. Eleven of her students participated in a semester-long qualitative study that involved anatomy and physiology seminars, workshops on breathing and oboe playing, and Alexander Technique workshops. The study also involved a laboratory session that provided digital data about lung volumes and blood chemistry. For all of the study’s participants, “the process of analyzing their breathing practice and charting its change over time brought into focus broader issues of their whole approach to playing, practicing and performing” (Gaunt, 2007, p. 225). While some aspects of the study had mixed results, for example, some of the students found a physiological understanding of breathing confusing, the instruction generally had a positive effect. Gaunt reported that her students demonstrated a “stronger awareness of breathing (p. 220), fewer gasping breaths and a more relaxed relationship between breathing, posture and movement (p.

223), stronger connections between breathing and music (p. 224), and development of strategies for reducing anxiety and self-criticism (p. 224)” (Gaunt, 2007).

Mazon performed a study that sought to assess the effectiveness of a breathing device called a Breath Builder™. The device consists of a ping-pong ball located inside of a cylinder with various-sized holes in the top, one of which a breathing tube is plugged into. The goal is to inhale and exhale through the tube with just the right amount of air to keep the ping-pong ball raised in the cylinder. The Breath Builder™ is a type of incentive spirometer, designed to get musicians to focus on utilizing their full lung capacity.

Fourteen undergraduate and graduate clarinetists participated in this study that involved using a Breath Builder™ three times a day for five days a week. The participants were divided into two experimental groups and the study took place over four weeks. In order to test for differences in lung function and musical performance as a result of using the Breath Builders™, four breathing measures and three musical measures were designated as the dependent variables. While there was no main effect on the lung function of participants, there was a significant effect found on participants’ maximal inspiratory pressure and maximal inspiratory pressure in one second. There were no main effect differences on musical performance (tone, note duration, phrase duration) (Mazon, 2009).

While these five studies have made great attempts to quantify the effects of breathing instruction for musicians, self-admitted limitations of sample size, sample quality, and length of study have kept them from accurately capturing the effects that long-term use of breathing instruction might have on musicians.

Director Anecdotes

Many band directors have shared their beliefs on the efficacy of teaching breathing. While not a substitute for peer-reviewed research, the perceptions of directors who deal with breathing instruction on a regular basis should be considered as an evaluator of the concept. For his book, *Rehearsing the High School Band*, Stephen Meyer (2016) interviewed 11 esteemed high school band directors from across America with a variety of teaching backgrounds. In responding to questions about fundamentals or tone, four of those directors discussed the importance of breathing. Bill Eicher encourages his students early in their beginning years to breathe deeply. Over time he “sculpts the sound by removing the edge but still keeping the resonance and fullness through breath support” (p. 20). Roy Holder uses phrases like “make the air column so big it feels like it is coming out of the sides of the instrument” to encourage his low brass players to play with an open and supported sound (p. 41). Because he feels that amateur musicians frequently lack proper breath support, Richard Saucedo starts every rehearsal with simple breathing exercises. Finally, David Vandewalker likes to utilize a system learned from the legendary band pedagogue Freddie Martin that relates airspeed to dynamic levels. He considers the velocity of air a crucial factor in tone quality.

There are band directors teaching breathing at all levels of secondary and higher education. Deb Dunn and Mary Crandell teach how to “breathe together to play together” and incorporate Lex’s (lung exercises) in their middle school band rehearsals (Dunn, 2016, p. 32). David Dunham has outlined the breathing instruction that he uses for the first six weeks of beginning band. He focuses on four main concepts: breathe through the mouth and not the nose, do not hold air in, do not lift the shoulders when breathing, and

do not make any noise when breathing. His instructional techniques include analogies and select exercises from *The Breathing Gym* (Dunham, 2016). Ron Carter, former Professor of Music and Coordinator of the Jazz Studies Program at Northern Illinois University, would teach breathing exercises to his jazz ensemble and marching band every day while at East St. Louis Lincoln High School (Streeter, 2004). Even college directors, who most often deal with advanced students, teach breathing when necessary. For example, Eugene Corporon, Director of Wind Studies at the University of North Texas, will use breathing exercises to focus a group on air speed, or to help a musician eliminate a problem such as breathing with their shoulders (Pursell, 2014). Micah Everett (2016) believes that every brass warmup, whatever the occasion, should begin with breathing exercises, and Jim Shaw (2010) starts each day with his band with a breathing exercise because it focuses and calms his students and improves many aspects of his students' playing.

These anecdotes demonstrate that proper breathing instruction has started to enter the lexicon of band directors of all age levels across various regions of the United States. However, research on what band directors value and how they spend rehearsal time shows that teaching breathing fundamentals is still not used by a majority of directors.

Time Spent Teaching Breathing in Rehearsal

While some band directors have started to share their experiences with teaching breathing via articles in trade magazines and conference presentations, research shows that teaching about breathing is often given little time in rehearsal. Juchniewicz, Kelly, and Acklin (2014) performed a study of 131 middle and high school band directors from

Florida, Kentucky, and North Carolina. These directors were deemed “superior” by having their band receive a top rating at evaluations for four out of five years. The respondents completed an online essay describing the most important aspect(s) or element(s) of their rehearsals. Out of 60 middle school directors that responded, six mentioned breath support. Of the high school directors, five described breathing exercises. Out of 131 superior band directors, 11 (8.4%) specifically mentioned some aspect of breathing as an important part of their program. While this study found a rather low percentage of directors focused on breathing, the open-ended nature of the research method dictates that data should not be cherry-picked and used as concrete evidence for a lack of breathing instruction. Juchniewicz, Kelly, and Acklin did find that 44% of middle school responses and 40% of high school responses fit into the category of music fundamentals, including 50 responses of “tone quality/production,” which some of the respondents may have used as a blanket statement that might include breathing instruction.

In a related study, Silvey (2013) had 161 band directors from Missouri complete a survey about their procedures for tuning, warm-ups, and dividing rehearsal time. One question asked the respondents to “write the three music skills most frequently addressed during their warm-up period” (p. 26). Out of 493 responses, breathing or air support appeared 33 times (6.7% of responses to that question, or 20.5% of respondents, if each respondent listed breathing/air support once). As was with the previous study, the type of question used means that result of 20.5% may not be an accurate representation of the actual percentage of directors who teach proper breathing.

Ward and Hancock (2016) video recorded 29 band directors (11 middle school, 18 high school) as they warmed up their bands for a state-level concert band assessment. After analyzing the videos and coding the activities, they found that 34.5% (27.3% middle school, 38.9% high school) of directors utilized breathing exercises in the contest warm-up. While approximately one-third of the directors utilized breathing exercises, time spent on those exercises averaged less than 2% of the allotted warm-up time. While these numbers show a larger percentage of directors utilizing breathing instruction than Juchniewicz, Kelly, and Acklin's and Silvey's studies, they too should be considered contextually. Ward and Hancock point out the unique circumstances of a judged performance situation, and how directors might choose to focus on warm-ups geared toward securing a high rating over the reinforcement of fundamentals.

Love (2012) set out to find relationships between rehearsal structures and contest ratings of high school bands in Kansas. Forty-seven directors completed a rehearsal structure questionnaire online. The questionnaire inquired about the rehearsal structure of each band (daily, block schedule, etc.), percentages of rehearsal time spent on non-musical tasks (such as announcements or passing out music), use of warm-up activities and the level of importance placed on each, and demographic information including directors' educational background, teaching load, and level of participation in contests. In one of the researcher's models, the negative regression coefficient showed that directors who utilize breathing and physical exercises had higher contest ratings. This was the only one of 17 warm-up activities to contribute to the variance in contest ratings. Interestingly, Love found that 82.2% of the directors consider breathing an important, or extremely important part of warm-up activities. However, only 45.7% of directors reported

including breathing exercises in their warm-ups most days or every day. Love admits that this discrepancy calls into question the accuracy of some of the responses and that investigation into them is warranted. However, the data still presents a case for including breathing instruction regularly in rehearsals.

Breathing instruction is not on the minds of many preservice teachers. Brittin (2005) performed a study that examined lesson plans for beginning band. Thirty undergraduate students and 28 graduate students with full-time teaching experience were given 20 minutes to complete a lesson plan based on a page out of a beginning band method book. While there were some restrictions in lesson plan format, the participants were largely given freedom to plan the rehearsal as they saw fit. Of the *teacher will* (theme coded by the researcher) statements, 5% of participants included teaching techniques geared toward breathing or posture.

For some preservice teachers, the difficulty lies not in diagnosing problems in students' breathing, but in uncovering the underlying issues and prescribing techniques to address those issues. Millican (2016) had 314 undergraduate brass and woodwind music education majors watch videos of four beginner instrumentalists that featured common performance problems. The third most often identified problem diagnosed by the participants was air movement, including breath support. Of the students that identified the three most common problems (the other two being sound/tone quality problems and articulation/note beginnings), about half (62 out of 121) were unable to identify an underlying cause. Others simply restated the problem itself as the underlying cause. Millican presents several solutions that might help direct preservice teachers' approaches to solving performance issues. Two of those include tailoring undergraduate coursework

to help them connect teaching strategies with performance issues and providing prompts that focus their attention on their mentor teachers' approaches.

Summary

Taken together, it is clear that breathing instruction can have positive effects on student performance. It is also clear that, while many band directors teach proper breathing techniques or see value in it, a majority do not make it a regular part of their instructional method or incorporate it into rehearsals. Preservice music educators are also not being properly prepared to diagnose problems with student breathing and incorporate teaching strategies to correct those problems.

CHAPTER 3

METHOD

Sample

The purpose of this study is to learn about the breathing instruction of successful high school marching band directors. For the purposes of this study, a marching band was deemed “successful” if they qualified for the finals competition at a Bands of America (BOA) sanctioned Regional or Super-Regional competition in either 2016 or 2017. BOA competitions were chosen over state-level competitions in order to open participation to directors from a broader geographical area. In the given years, BOA competitions took place in 12 states and featured finalist bands from 30 states. The researcher compiled a list of 223 qualifying bands based on results posted on the Music for All website (the organization that governs BOA). The researcher searched for electronic mail addresses for the directors of those bands on school and personal websites. In cases where multiple band directors were listed, only the head director was invited to participate. However, the invitation to participate indicated that directors could forward the survey to another director or staff member whose responsibilities made him/her more qualified to answer questions about breathing instruction. Three listed email addresses were found to be incorrect. Seven schools did not list staff members or contact information on their website. A total of 213 band directors were invited to participate in the study.

Data Collection Instrument

An online surveying software, SurveyMonkey.com, was used to create and disseminate the survey, which would allow participants to complete it at their leisure. The first page consisted of an informed consent document as required by the institutional review board. Page two collected demographic information including age, years of teaching experience, years at current position, state in which position is located, size of the band, and director's primary instrument. Page two finished with a question that routed participants to different questions based on whether or not they teach proper breathing techniques in marching band rehearsals. Pages three and four consisted of eleven questions (multiple choice, Likert scale, open-ended) designed to gain information about the frequency of which directors teach about breathing, what methods are used and where they were learned, and what challenges or drawbacks directors face while teaching breathing. Page five consisted of two questions for directors who do not teach breathing techniques during marching band rehearsals. These questions sought to learn why directors may not teach about breathing and what resources they might be interested in using to learn about breathing. See the survey at the end of this document (Appendix 1).

Response Rate

Invitations to participate in the survey were sent the week following the conclusion of the 2017 marching band season (Bands of America Grand Nationals). After one month of data collection a follow-up email was sent. A total of 87 directors started the survey. Eleven surveys were not completed, and those responses were not tallied in the final results. A total of 76 directors completed the survey for a response rate of

35.7%. On average, respondents spent 6 minutes and 24 seconds completing the survey.

Qualitative responses were coded holistically and categorized by common themes.

CHAPTER 4

RESULTS

Demographics

Demographic information of respondents encompassed a range of ages (Table 1) and levels of experience (Table 2). Table 3 shows the number of surveys completed from each state. Respondents' primary instruments were identified in the following families: brass ($n = 49$; 64.5%), woodwind ($n = 20$; 26.3%), and percussion ($n = 7$; 9.2%). A majority ($n = 32$; 53.3%) of the directors teach bands with between 76-150 wind players. Eleven (14.5%) of the bands have 75 or fewer wind players, and 23 (30.3%) have 151 or more.

Table 1. Ages of Participants

<u>Age</u>	<u><i>n</i></u>	<u>%</u>
21-30 Years	8	10.5
31-40 Years	33	43.4
41-50 Years	22	28.9
51-60 Years	13	17.1

Table 2. Years of Experience

<u>Years</u>	<u><i>n</i></u>	<u>%</u>
0-5 Years	5	6.6
6-10 Years	11	14.5
11-15 Years	16	21.1
16-20 Years	17	22.4
21-25 Years	12	15.8
26-30 Years	7	9.2
31+ Years	8	10.5

Table 3. State Representation

<u>State</u>	<u>Responses</u>
Texas	20
Georgia	10
Pennsylvania	7
California	6
Ohio	5
South Carolina	4
Arizona	2
Illinois	2
Indiana	2
Michigan	2
Missouri	2
New Jersey	2
Alabama	1
Colorado	1
Florida	1
Kansas	1
Kentucky	1
Mississippi	1
Nevada	1
New Mexico	1
North Carolina	1
Tennessee	1
Utah	1
Virginia	1

Frequency of Instruction

Sixty-five respondents (84.2%) indicated that they teach about breathing in every rehearsal, three (3.9%) somewhere between every day and once a week, three (3.9%) once a week, two (2.6%) primarily during band camp and periodically after that, one (1.3%) about every-other week, one (1.3%) only during band camp, and one (1.3%) when necessary to correct specific problems. There were zero respondents who indicated that they do not teach about proper breathing techniques at some point during the marching band season. In those rehearsals, 42 directors (55.3%) spend one-to-five minutes devoted

to breathing instruction. For 27 directors (35.5%) it is six-to-ten minutes. Six directors (7.9%) spend 11-to-20 minutes on breathing, and one director (1.3%) spends more than 30 minutes on breathing (through some combination of playing and isolated breathing exercises).

Resources and Methods

Table 4 shows percentages of respondents that use particular resources and methods of breathing instruction. Of particular note is the 86.8% of directors that use *The Breathing Gym* as a resource and the significant percentage of directors that use devices to aid instruction (breathing tubes: 36.8%, balloons: 29.0%, medical breathing devices: 3.9%, PVC ball pipe: 3.9%, Breath Builders™: 1.3%). “Other” responses included breathing counts while running, PVC ball pipes, which allow for varying resistance levels, and hybrids of the other mentioned methods.

Table 4: Resources and Methods Used for Breathing Instruction

Resources/Method	Responses	%
<i>The Breathing Gym</i>	66	86.8
Exercises made up on your own	40	52.6
Breathing tubes	28	36.8
Balloons	22	28.9
<i>Inside the Circle</i>	22	28.9
Other	11	14.5
Medical breathing devices	3	3.9
Breath Builders™	1	1.3

Participants were asked to describe their favorite exercise or teaching tool for breathing. Twenty respondents simply wrote “*Breathing Gym*,” or “Anything from *The*

Breathing Gym.” Many respondents did not mention *The Breathing Gym* directly but described exercises similar to the “flow studies” found in it. For example, 27 respondents described an exercise that one person called “In for X, Out for Y.” It involves breathing in and out for a certain number of counts, and then varying those counts. For example, breathe in 4 counts—out 4, in 3—out 5, in 2—out 6, etc. Another variation involves keeping the inhale consistent and changing the exhale (e.g. in 1—out 8, in 1—out 12, etc.), or vice versa.

Ten respondents described exercises that target making students feel more comfortable at the extreme ends of the breath – completely full or completely empty. A sample exercise involves breathing in to capacity over a specified number of counts, then attempting to sip in more air a number of times, before exhaling over a specific number of counts. Some referenced *The Breathing Gym* exercises “5 in, 15 hold, 5 out” and “In, Sip, Sip – Out, Push, Push.”

Seventeen respondents mentioned some sort of device as their favorite teaching tool. There were 10 mentions of breathing tubes and seven mentions of balloons. One respondent said, “We use a breathing tube with a valve that allows changes in resistance. That has done wonders for our players.” Another uses balloons “to teach the students about consistency of air and starting a note.” Eight respondents’ favorite exercise involved some form of physical representation or visualization of the air. One respondent listed “exercises that require students to visualize their air, air speed, or direction, or involve kinesthetic motion to reinforce concepts,” while three respondents mentioned paper airplanes, darts, and bow-and-arrows from *The Breathing Gym*, and another two described monitored flow exercises, also found in the popular method.

Four respondents described how they tie breathing counts to dynamics. One said, “We do what we call ‘quantitative air,’ where we discuss dynamics within numbers and air speeds.” Another said, “It’s mostly conceptual – flow rates vs. volume (how much) of air.” Other favorite exercises/tools include blowing air through instruments/half-valving (two responses), using metaphors (two), “In and Outs” borrowed from Alfred Watkins (one), “Breathe Dah” (one), Inhale therapy with a slight leak, another *Breathing Gym* exercise (one), and singing (one).

Sources of Information

Participants were asked about sources from which they have learned about teaching breathing (Table 5).

Table 5. Sources Respondents Cited for Breathing Instruction Exercises/Tools

Source	<i>n</i>	%
Clinics	62	81.6
Books	60	78.9
Former Ensemble Directors	52	68.4
Former Private Instructors	34	44.7
Websites	22	28.9
Magazines	21	27.6
Collegiate Level Methods Classes	19	25.0
Social Media	11	14.5
Other: Colleagues	7	9.2
None of the Above	5	6.6
Other: Drum and Bugle Corps	4	5.3
Other: Choir Directors/Singers	2	2.6
Other: Clinicians	2	2.6
Other: Rehearsal Observations and Videos/Youtube.com	2	2.6
Other: Medical Professionals	1	1.3
Other: Mentors	1	1.3

Perceived Benefits

Respondents were asked, “What aspects of playing do you believe benefit from breathing instruction (e.g. tone, articulation, intonation) OR more broadly, what is your reason for teaching proper breathing techniques?” The most common answers related to technical aspects of performance, such as sound (tone quality, resonance, timbre, etc.), intonation, articulation, and dynamics (control, projection, volume). There were 108 mentions of these aspects. One director wrote, “Breathing is the foundation for all tone production on wind instruments.” Another stated that “A student musician cannot create the proper tone without correct breathing – this is the basis for proper tone and must be addressed in every rehearsal.” One typical response to this question read something like, “Tone, articulation, intonation, and sound projection all benefit from breathing instruction.”

There were 25 mentions of physical aspects of playing, including endurance/stamina, breath support, lung capacity/ability to sustain, breath and body control under stress, movement of air and turnaround of the breath, muscle (embouchure) flexibility, and increased energy levels. “The student must know how to control his/her breathing when they feel tired,” said one respondent. Another incorporates breathing exercises into a running program to help “build endurance so the winds sound as strong at the end of the show as they did at the beginning.”

Musical aspects of performance mentioned included phrasing (seven times) and expression (two times). Some respondents described benefits to mental attributes of performing. Calming or relaxing effects were mentioned four times, focus three times, and a visual representation to aid in learning one time. There were responses like, “We

find that it can relax the kids...and allows them to perform with less anxiety,” “It helps create a calm, focused rehearsal,” and “200 high school kids can lose focus easily; Sometimes we stop in a rehearsal and do breathing instruction just to bring their focus back to the detail at hand.” Ensemble aspects of performance mentioned included balance (two times) and blend (one time).

Twenty-five respondents said in some variation that breathing instruction affects all aspects of playing. “Air/breathing is the key that unlocks all musical elements,” said one respondent. Other comments included: “Wind is the essential component of the wind instrument,” “I believe that it is a critical part of being a wind player,” and “Air is the gas to drive the band car – It’s everything.” Another respondent used a fuel/vehicle analogy and said, “Air is the fuel for the instrument; if you do not have a high quality and/or volume of fuel for your vehicle, then it is probably not going to run very well.” (See Table 6)

Participants were asked to rate how beneficial they consider breathing instruction to be for various families of instruments on a Likert scale from 1 (least beneficial) to 5 (most beneficial). The brass instruments and flute received the most 5s. Percussion received the most 1s, 2s, 3s, and Not Applicable scores. (See table 7)

Challenges and Drawbacks of Teaching Breathing

The last few questions revolved around challenges and drawbacks of teaching breathing, as well as differences in breathing instruction between marching band and concert ensembles. Forty-two respondents (55.23%) stated that they encounter some kind of challenge when teaching breathing techniques to their marching bands. The most

Table 6. Aspects of Performance that Benefit from Breathing Instruction

All aspects of performance	Total: 25	
• All aspects of performance	25	32.9%
Technical aspects of performance	Total: 108	
• Sound (tone quality/production, resonance, timbre, etc.)	53	69.7%
• Intonation	26	34.2%
• Articulation	15	19.7%
• Dynamics (contrast, projection, volume, etc.)	14	18.4%
Physical aspects of performance	Total: 25	
• Endurance/Stamina	9	11.8%
• Support	4	5.3%
• Sustain/Lung capacity	4	5.3%
• Breath/Body control when tired/winded	4	5.3%
• Air movement/Transition between inhale and exhale	2	2.6%
• Muscle (embouchure) flexibility	1	1.3%
• Energy	1	1.3%
Musical aspects of performance	Total: 9	
• Phrasing	7	9.2%
• Expression	2	2.6%
Mental aspects of performance	Total: 8	
• Calming effect/relaxing	4	5.3%
• Improved focus	3	3.9%
• Visual representation of the air	1	1.3%
Ensemble aspects of performance	Total: 3	
• Balance	2	2.6%
• Blend	1	1.3%

Table 7. Ratings of How Beneficial Breathing Exercises/Instruction Are for Each Instrument Family

Instrument	Rating						Average
	N/A	1	2	3	4	5	
Flute	1	1	1	3	4	66	4.77
Double Reed	2	1	4	13	8	48	4.32
Clarinet	1	1	0	5	11	58	4.67
Saxophone	1	1	0	7	9	58	4.64
Trumpet	1	0	1	0	3	71	4.92
French Horn/Mellophone	1	0	1	0	3	71	4.92
Trombone/Baritone/Euphonium	1	0	1	0	1	73	4.95
Tuba/Sousaphone	1	1	0	0	1	73	4.93
Percussion	8	8	16	18	7	17	3.14

common challenge faced is what some called a lack of “buy-in” (15 responses). One respondent said, “Some students will not take it seriously.” Others said, “As with many fundamentals, universal “buy-in” is a challenge sometimes,” and “Younger students do not want to participate due to lack of understanding of the importance.” The second most common challenge is getting students to stay relaxed and perform the exercises without tension (seven responses). One respondent said, “We have to watch them for tension and bad habits,” while another said, “The tendency for wind players is to “force” the exhalation of air causing a tense and forced/tight sound. I have had to work on wind players releasing tension and staying relaxed while maximizing airflow through breathing.” The third most common challenge involves getting students to apply what they learn from breathing instruction once other stressors of performance are added (six responses). One respondent said, “It is always the first skill set that is not thought about as others are layered on.” Another said, “They do not take the proper breath when they start playing and or moving. Getting them to transfer the exercises is a daily challenge.” Other challenges mentioned include making sure that the exercises are actually effective, avoiding physical reactions such as light-headedness or passing out, students’ lack of prior knowledge about breathing, determining how to properly assess participation and achievement in the exercises, making sure that the information being presented is correct, and not having enough time to cover the material the desired way.

Nine directors (11.8%) said that they see drawback(s) to teaching breathing.

Three of those responses were related to the time commitment required. One such response stated that it “Takes a lot of time if you’re going to do it right and commit to it.” Two directors described tension as a potential drawback. One stated, “If tension begins to

creep in, we address it immediately. All of the good work done with muscle building will be undone with tension.” Other drawbacks, each mentioned once, included dizziness as a result of some of the exercises, taking a long time before students understand the benefits and results are seen, needing to constantly be keeping things fresh in order to keep students interested, making sure no one gets confused by anatomical information, having to correct false information (assumedly taught by other staff members), and the varying levels of application between brass and reed players.

Breathing Pedagogy in Non-Marching Band Settings

When asked if they also teach breathing with non-marching ensembles, 11 directors (14.5%) said “Yes, and even more so than with the marching band,” 44 (57.9%) said “Yes, and about the same amount as with the marching band,” and 21 (27.6%) said “Yes, but less so than with the marching band.” Zero directors said that they do not teach about breathing with their non-marching ensembles. Thirty-one directors (40.8%) said that their approach to breathing instruction is different with non-marching ensembles in at least one way. Those differences included placing different physical demands on the students, such as sitting down rather than standing/marching (9 responses), utilizing different exercises (9 responses), and refocusing the purpose of the instruction, such as flow instead of volume, softer dynamics instead of louder dynamics, or the subtlety of attacks and releases in smaller ensembles (8 responses). Others mentioned how they move faster or slower, or spend more or less time on breathing with their non-marching ensembles.

CHAPTER 5

DISCUSSION

Despite many musicians and teachers agreeing that proper breathing techniques are an integral component of wind instrument playing, research shows that a majority of middle and high school band directors, while many acknowledge the value of breathing instruction, do not incorporate it regularly into their teaching (Juchniewicz, Kelly, & Acklin, 2014; Love, 2012; Silvey, 2013; Ward, & Hancock, 2016). These studies have focused largely on categorizing rehearsal strategies and time allocation within rehearsals. There have been no studies, to the researcher's knowledge, that focused solely on the use of breathing instruction in band settings. This study sought to fill part of this gap in the literature by focusing on the breathing instruction of successful high school marching band directors across the United States.

Research Question No. 1: How much time do successful marching band directors spend teaching breathing fundamentals?

Of the 76 band directors who participated in the study, 100% indicated that they teach breathing concepts at some point during their marching band season. This percentage cannot be generalized to all of the directors with bands that qualified for the study. It is possible that the directors who participated were those who are passionate about breathing instruction and were drawn to the subject matter of the study, while those who chose not to participate did so simply because breathing instruction is not a regular

part of their curriculum. Regardless, it can be said that at least 34.1% of qualifying band directors (76 out of 223) incorporate breathing instruction into their marching band rehearsals. This percentage matches approximately the 34.5% of directors that used breathing exercises in their contest warm-ups as described by Ward and Hancock (2016).

Out of the 76 responses, 65 said that they teach about breathing in every rehearsal. That is 84.2% of the respondents, and 29.4% of all qualifying directors. In other words, between a quarter and a third of all bands that qualified for BOA Regional or Super-Regional finals competitions in 2016 or 2017 were receiving breathing instruction in every rehearsal.

Forty-two directors said that they spend 1-5 minutes devoted to breathing at a time, and 27 directors spend 6-10 minutes. Combined, that is 69 directors (90.8% of respondents) that spend 10 or fewer minutes teaching breathing in a rehearsal. A common excuse for not incorporating breathing instruction into band curriculums is that it “takes too much time.” According to the results of this survey, many successful directors have found a way to teach breathing concepts on a regular basis using small chunks of time. Future research could focus on how the time commitment to breathing instruction changes over the course of a marching season. It could also focus on the distribution of time spent on breathing instruction throughout rehearsals (during warm-ups/fundamentals, spread throughout rehearsal, when coming back from breaks to refocus students, etc.).

Research Question No. 2: What types of exercises or methods do successful marching band directors use to teach proper breathing techniques?

The most popular resource for breathing instruction was overwhelmingly *The Breathing Gym*. Sixty-six out of 76 respondents said that they use the popular method, and 61 said directly or indirectly that their favorite exercise was from it. This included 20 responses of “*Breathing Gym*” or “anything from *The Breathing Gym*,” and 41 responses naming or describing a specific exercise from the book. This demonstrates how popular and widespread the method has become. The questions that needs to be asked now are, “Why is the method so popular?” and, “Is it effective?” Other breathing instruction texts and methodologies have been released since 2001, yet *The Breathing Gym* seems to have a lock on the market. Future studies should consider the proliferation and effectiveness of the popular method.

Just over half of the respondents said that they utilize exercises that they have made up on their own. Future research should seek to describe these exercises, their origins, and their effectiveness in order to determine whether they should be shared with the teaching population to improve best practices.

Clinics and printed materials (books and magazines) were cited as some of the most common sources of information for breathing instruction. Many directors borrow teaching methods from former teachers, citing former ensemble directors (52 responses), former private instructors (34), collegiate level methods classes (19), and experience in drum and bugle corps (4). Methods of breathing instruction are also spread by word of mouth, with directors learning via social media, colleagues and other directors, clinicians, rehearsal observations, and mentors. Perhaps the fact that so many directors learn instructional techniques from second-hand sources could explain the false or misleading

information being disseminated that was referenced by some of the respondents when they described challenges to their instruction. Directors should strive to learn from first hand sources and should always evaluate the validity of a breathing exercise or instructional method before using it with their ensembles.

Perhaps the most discouraging result from the study was the number of directors who learned about breathing instruction in their collegiate level methods courses (19). If proper breathing is broadly recognized as an important fundamental aspect of performing on wind instruments, our teacher training institutions have a responsibility to train future teachers how to properly teach breathing techniques, as well as how to diagnose and correct improper breathing. This lack of pedagogical instruction at the preservice level was demonstrated in Millican's (2016) study of undergraduate music education majors, as well as by Alsop (2016), who found that music education majors had a poor grasp of how anatomy functioned in breathing for musical performance, how to diagnose poor breathing, and methods to correct it. Instructors of secondary and instrumental methods courses should consider including more pedagogical instruction to assist young teachers with regard to proper breathing.

Research Question No. 3: What do successful marching band directors perceive as the value of teaching breathing techniques?

Twenty-five directors, when asked to elaborate on the benefits of breathing instruction, responded with some variation of "all aspects of performance." This says a lot about the value that those directors place on teaching breathing. The open-ended nature of the question meant that directors could respond in any way that they wanted. The large variety of responses, including technical and physical aspects of performance,

musicality, mental benefits, and improvements in ensemble sound, aligns with the consensus of many musicians and teachers that proper breathing technique plays a critical role in many aspects of playing a wind instrument (Bailey, 1992; Boren, 2005; Buckmaster, 2008; Ely & Van Deuren, 2009; Gillis, 2009; Johnson, 1981; Wright, 2011).

Fifty-three directors stated that breathing instruction improves their students' sound (tone quality, tone production, resonance, timbre). Twenty-six directors cited improved intonation, while articulation and dynamics (dynamic contrast, ability to project, control of volume) were mentioned 15 and 14 times respectively. Question four of the survey read: "What aspects of playing do you believe benefit from breathing instruction (e.g. tone, articulation, intonation)? OR more broadly, what is your reason for teaching proper breathing techniques?" It is possible that the phrasing of the question led directors to cite tone, intonation, and articulation the most. However, the difference in the number of references to sound/tone (53) and intonation (26) shows that the phrasing of the question could not have been the only influence on responses, and that directors see a strong connection between breathing instruction and students' sound quality.

The results of the Likert scale question regarding perceived benefits of breathing instruction for each family of instruments create a few interesting points. For all of the brass instruments, over 93% of respondents gave them a score of five out of five. The average rating across brass instruments was 4.93 out of five. The perceived benefits for flutes and single reed woodwinds was less, averaging 4.70 across the woodwind family. There is a considerable drop in perceived benefits for double-reed instruments, averaging 4.32 with only 63.2% of respondents giving a rating of five. The noted differences in perceived benefits raises a few questions worth considering: Were responses influenced

by the large percentage of participating directors whose primary instrument was in the brass family? Are there notable differences between good breathing techniques of woodwind and brass players? Do the most common instructional methods meet the needs of brass players more so than those of woodwind players? Future research should seek to answer these questions.

The most controversial family of instruments regarding benefits gained from breathing instruction is the percussion family, which averaged a score of 3.14 out of five. It received the most one ratings (eight), two ratings (16), three ratings (18), and not applicable ratings (8). It was the only family not to have a majority of its ratings as fives. There were, however, 17 directors who gave it a score of five. This wide range of scores for the percussion family shows that there are many varied philosophies toward breathing instruction for percussionists. Future research should focus on these philosophies, as well as how directors tailor their instruction to meet the needs of different instrument families.

Research Question No. 4: Are there any challenges or drawbacks consistently faced across the profession when teaching breathing techniques?

Forty-two directors acknowledged that they face some kind of challenge when teaching breathing techniques to their bands. The three most common challenges included getting students to completely “buy in” to the process (15 responses), avoiding tension and staying relaxed while doing breathing exercises (seven), and maintaining concepts from breathing instruction when other stressors of performance are added to player responsibilities (six). Roughly one out of every five respondents pointed out a struggle relating to participation, or “buy-in.” Several described younger students that do not yet understand the value of the instruction, while others said that benefits can take

time to materialize, and some students grow complacent before they notice their own growth. Researchers should seek to find avenues through which findings can be presented clearly to younger students, in order to assist directors in encouraging their younger students to participate in and value breathing instruction.

Nine directors described a negative aspect of breathing instruction seen as a drawback. However, no more than three directors had a common response. With no more than 4% of respondents agreeing on any single negative aspect of teaching breathing, it cannot be said that any drawbacks are found across the profession.

Limitations

One limitation of this study relates to the definition of success used as a qualifier for the target population. Directors whose bands competed in the Bands of America competitions were chosen because of the broad reach of BOA across the country and the centralized location of competition results on a single website. There are certainly successful marching band programs around the country that do not participate in BOA. Defining success differently in future research could open the study to a larger target population. Another consideration could involve surveying the general population of high school marching band directors without regard to their level of success. Results from such a study would allow for broader generalizations across the profession.

Another limitation of this study was the response rate (35.7%). The non-response bias is difficult to calculate because many factors could have led to non-participation. Invited directors were made aware of the subject matter of the survey in its invitation, and the response rate could have been affected by invitees' already-determined biases toward

breathing instruction. This should also be considered when examining the lack of respondents who do not teach about breathing in their marching band rehearsals (It is highly unlikely that 100% of successful directors teach about proper breathing in their marching band rehearsals).

Conclusion

The purpose of this study was to examine the breathing instruction of successful high school marching band directors. The researcher sought to learn about how often proper breathing is taught, what methods are most commonly used, perceived benefits for the marching members, and potential negative aspects or consequences of breathing instruction. It was found that at least a quarter of the qualifying directors teach about proper breathing in every marching band rehearsal, usually in small increments of time (5-10 minutes). *The Breathing Gym* is by far the most popular resource for instructional techniques. Directors that utilize breathing instruction do so because they see a large variety of potential benefits for their students, and there seem to be few challenges/drawbacks commonly recognized among the surveyed directors.

The broad scope of this study and its results have generated more questions than answers, many of which were described earlier in this chapter. If proper breathing truly is one of the most important factors of playing a wind instrument, affecting nearly every aspect of performance, then the profession needs to undertake much more research for the sake of learning about and sharing the best practices of breathing instruction.

REFERENCES

- Alsop, M. (2016). *Teaching breathing: Experiences, perceptions, and pedagogical knowledge of music education majors*. Unpublished manuscript.
- Bailey, W., Miles, P., Siebert, A., Stanley, W., & Stein, T. (1992). *Teaching Brass: A Resource Manual*. New York: McGraw-Hill.
- Boren, M. (2005). *Breathing for performance: A guide for wind and voice musicians*. Houston, TX: Powerlung Press.
- Brittin, R. (2005). Preservice and experienced teachers' lesson plans for beginning instrumentalists. *Journal of Research in Music Education*, 53(1), 26-39.
- Buckmaster, M. (2008). Teaching strategies for undergraduate trombone students: An interview with John Drew. *ITA Journal*, 36(3), 54-61.
- Cannon, A. R. (2005). *A preliminary study of the effectiveness of two breath management exercises on three aspects of flutists' performance: Duration, breath control and tone quality* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (Order No. 3199225)
- Davenport, P.W., Martin, A.D., & Sapienza, C.M. (2002). Expiratory muscle training increases pressure support in high school band students. *Journal of Voice – Official Journal of the Voice Foundation*, 16(4), 495-501.
- Deane, R. (2009). *The efficient approach: Accelerated development for the horn*. Atlanta, GA: Atlanta Brass Society.
- Dunham, D. (2016). The first six weeks: A beginning band curriculum. *The Instrumentalist*, 70(10), 16-20, 45.
- Dunn, D. (2017). Fabulous middle school band rehearsal techniques. *School Band & Orchestra*, 20(8), 32-34.
- Dunnigan, P. (2007). *Marching band techniques: Designing, rehearsing, and perfecting marching band shows with school ensembles*. Northfield, IL: The Instrumentalist Publishing Company.
- Ely, M., & Van Deuren, A. E. (2009). *Wind Talk for Brass*. Oxford; Oxford University Press.

- Everett, M. (2016). Build a better brass warmup. *The Instrumentalist* 70(8), 24-25.
- Frederiksen, B. (1996). *Arnold Jacobs: Song and wind*. Grayslake, IL: WindSong Press Limited.
- Gaunt, H. (2004). Breathing and the oboe: Playing, teaching and learning. *British Journal of Music Education*, 21(3), 313-328.
- Gaunt, H. (2007). Learning and teaching breathing and oboe playing: Action research in a conservatoire. *British Journal of Music Education*, 24(2), 207-231.
- Gillis, G. (2009). Music makers: Band – wind players creating quality sounds. *Canadian Music Educator*, 50(4), 43-45.
- goders22. (2007, February 14). *DCI Athletes* [Video File]. Retrieved from <https://www.youtube.com/watch?v=6WWmM1jpM8I>
- Johnson, A. (2010) “The fundamental approach to trombone technique: A comprehensive strategy for addressing common technical deficiencies in trombone performance.” Dissertation for Ball State University.
- Johnson, K. (1981). *The art of trumpet playing*. Ames, IA: Iowa State University Press.
- Juchniewicz, J., Kelly, S.N., & Acklin, A.I. (2014). Rehearsal characteristics of “superior” band directors. *UPDATE: Applications of Research in Music Education*, 32(2), 35-43.
- Love, J. W. (2012). *The relationship between rehearsal structure and contest ratings for high school bands* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (Order No. 1510881)
- Mazon, W. E. (2009). *The effect of the breath builder™ on various lung functions and musical performance abilities of clarinet players* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (Order No. 3366719)
- Meyer, S. (2016). Rehearsing the High School Band. *School Band & Orchestra*, 19(4), 30-31.
- Millican, J. (2016). Describing preservice instrumental music educators’ pedagogical content knowledge. *UPDATE: Applications of Research in Music Education*, 34(2), 61-68.
- Pilafian, S., & Sheridan, P. (2001). *The breathing gym*. Mesa, AZ: Focus on Music.
- Porter, D. (2011). Pedagogy: Tips for tuba, TTVXID - how do you breathe? *ITEA Journal*, 39(1), 77-79.

- Pursell, A. (2014). A conversation with Eugene Migliaro Corporon. *The Instrumentalist*, 69(5), 10-15, 44.
- Sehmann, K.H. (2000). The effects of breath management instruction on the performance of elementary brass players. *Journal of Research in Music Education*, 48(2), 136-150.
- Shaw, J. (2010). Keep daily drills from becoming routine. *The Instrumentalist*, 64(9), 58-59.
- Silvey, B. (2013). Missouri high school band directors' reports of tuning procedures, warm-up materials, and rehearsal time. *Missouri Journal of Research in Music Education*, 50, 20-32.
- Streeter, T. (2004). An interview with Ron Carter. *Jazz Education Journal*, 36(5), 43-46, 48-50.
- Vining, D. (2009). *The breathing book: Tuba edition*. Flagstaff, AZ: Mountain Peak Music.
- Ward, J.P., & Hancock, C.B. (2016). Warm-up activities of middle and high school band directors participating in state-level concert band assessments. *UPDATE: Applications of Research in Music Education*, 34(2), 29-36.
- Wick, D. (1971). *Trombone technique*. London: Oxford University Press.
- Wright, E. (2011). Dynamic breathing and respiratory mechanics for brass players and teachers. *ITG Journal*, 35(3), 32-36.

APPENDICES

Appendix 1: Survey (Physical Version)

Page 1

- What is your age?
 - Dropdown: 21-30, 31-40, 41-50, 51-60, 60+
- How many years of teaching experience do you have?
 - Dropdown: 0-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31+
- How many years have you been at your current position?
 - Dropdown: 0-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31+
- In what state or U.S. territory do you currently teach?
 - Dropdown: AK, AL, etc.
- How many wind players (brass and woodwinds) are in your marching band?
 - Dropdown: 1-25, 26-50, 51-75, 76-100, 101-125, 126-150, 151-175, 176-200, 201+
- In what family is your primary instrument?
 - Dropdown: brass, woodwind, percussion, string, voice, other _____

- Do you teach proper breathing techniques in your marching band rehearsals?
 - Yes (Survey Monkey will reroute to page 2)
 - No (Survey Monkey will reroute to page 4)

Page 2

1. How regularly do you teach about breathing in rehearsals throughout the marching season?
 - Every rehearsal
 - Once a week
 - Once every other week
 - Once a month
 - To correct specific problems
 - Only during band camp
 - Other _____

2. In those rehearsals, about how much time do you devote to breathing instruction?
 - 1 to 5 minutes
 - 6 to 10 minutes
 - 11 to 20 minutes
 - 21 to 30 minutes
 - More than 30 minutes

3. Do you use a particular resource(s) or method(s) for your breathing instruction? Check all that apply.
 - Breathing Gym
 - Inside the Circle
 - Breathing Tubes
 - Balloons
 - Breath Builders
 - Medical Breathing Devices (such as volumetric exerciser or incentive exerciser)
 - Exercises made up on your own
 - Other _____

4. What aspects of playing do you believe benefit from breathing instruction (e.g. tone, articulation, intonation)? OR more broadly, what is your reason for teaching proper breathing techniques?
 - _____
 - _____

5. Please briefly describe your favorite breathing exercise or teaching tool for breathing.
 - _____
 - _____

6. From what sources have you learned about teaching breathing? (Check all that apply)

- Books
- Magazines
- Clinics
- Former Private Instructors
- Former Ensemble Directors
- Collegiate Level Methods Classes
- Social Media
- Websites
- Other _____

7. On a scale of 1-5, how beneficial do you consider breathing instruction for the following instrument families? (1 being not beneficial at all and 5 being very beneficial)

Flute	1	2	3	4	5
Double Reed	1	2	3	4	5
Clarinet	1	2	3	4	5
Saxophone	1	2	3	4	5
Trumpet	1	2	3	4	5
French Horn/Mellophone	1	2	3	4	5
Trombone/Baritone/Euphonium	1	2	3	4	5
Tuba/Sousaphone	1	2	3	4	5
Percussion	1	2	3	4	5

8. Do you encounter any challenges when teaching breathing techniques to your marching band? If so, please explain.

- Yes

▪ _____

- No

Page 3 (Cont.)

9. Do you see any drawbacks to including breathing instruction in your teaching? If so, please explain.

Yes

▪ _____

No

10. Do you also teach about breathing with your non-marching ensembles?

Yes, and even more so than with the marching band.

Yes, about the same amount as with the marching band.

Yes, but less so than with the marching band.

No.

N/A. I do not teach any non-marching ensembles.

11. If you do teach about breathing with your non-marching ensembles, do you do anything differently with them than you do with the marching band? If so, please briefly explain.

Yes

▪ _____

No

N/A

Page 4

- Is there a particular reason why you do not teach breathing methods to your marching band? (check all that apply)
 - I don't know anything about it.
 - I don't know enough about it to feel comfortable teaching it.
 - I don't have the resources to learn about it.
 - I don't see the value/benefits of it.
 - I don't have the rehearsal time for it.
 - Other _____

- If you were interested in learning more about breathing instruction, where would you hope to go to find more information? (check all that apply)
 - Books
 - Magazines
 - Clinics
 - Local Private Instructors
 - Other Local Ensemble Directors
 - Continued Education Classes or Professional Development
 - Social Media
 - Websites
 - Other _____

Appendix 2A: Responses to Question #4

What aspects of playing do you believe benefit from breathing instruction (e.g. tone, articulation, intonation)? OR more broadly, what is your reason for teaching proper breathing techniques?

Oxygen fuels our bodies and allows them to operate at optimum and peak levels. Therefore advanced and athletic breathing techniques teach better body control as well as the benefits of Tone, Intonation and articulation.

All of the above

I believe the transition to inhale and exhale is underdeveloped - it helps us use that time sufficiently. I also believe it helps kids focus on the right energy for tone production.

Increased tone production, phrasing, stamina, energy

Characteristic tone, sustain, support.

Frankly all aspects of proper wind performance depends on the proper use of air (flow).

All of the above! Tone, timbre, intonation, breath support, subdivision of the beat for entrances, proper releases all improves, but there is more.... 200 high school kids can lose focus easily. Sometime we stop in a rehearsal and do breathing instruction just to bring their focus back to the detail at hand. We find, too, that it can relax the kids. This year for us, was the most successful season we have ever experienced. The kids felt more stressed out than ever. Slow and steady, warm and rich breathing, relaxes the students and allowed them to perform with less anxiety.

Tone, intonation, endurance

First and foremost, breathing gym gets the minds focused. It also improves tone quality, and with brass players dramatically improves stamina.

Tone most importantly, though good breathing informs all parts of our playing as wind players. Students are typically not aware of their breathing at the level that is necessary for good resonance so regular breathing work keeps that skill at the front of their minds.

Tone quality and intonation derive from steady air stream which is established only with defined inhale and exhale technique.

Tone and projection of a characteristic/quality sound are the things that are most impacted by breathing exercises.

I believe every aspect of playing benefits from breathing instruction, but specifically: vibration (of the lips or reed), tone, relaxation, range, endurance, consistency of sound/sustain, phrasing, etc.

Volume

All aspects of characteristic wind playing can be traced back to the breath as well as use of the air.

Improved lung capacity, air movement, tone quality and sound production

Tone. Breathing for wind instruments is a skill and like any other skill, you must break it down and practice it for it to improve.

All of the above, all aspects of proper performance.

Everything, we play Wind Instruments. Once we get past the initial two weeks listed above, we focus on quality of sound first and then address the other areas of Intonation, Articulation, etc.

We firmly believe in breathing exercises as it teaches the students the value of taking a great breath, and each subsequent breath. We stress it's importance to the success of our tone, articulation, intonation, etc...

Tone, pitch, phrasing, and shaping. It benefits articulation in some ways, particularly with the back ends of notes, and aids in certain inflections on the front ends.

Tone is a major factor in teaching proper breathing techniques. When students learn to support their sound the band has a "bigger" sound with less dropouts and individual tone is much more stable.

Tone, intonation, articulation, phrase control; Air is the fuel for the instrument; if you do not have a high quality and/or volume of fuel for your vehicle, then it is probably not going to run very well. Same with performing on an instrument. Moving air, and the correct volume of air is always the most difficult hurdle to overcome with young performers

Tone and intonation primarily benefit.

Breathing is essential to all musical elements. If you can't provide proper air support to your instrument you cannot produce proper tone (and there is no point in tuning a bad sounds in my opinion), you can't play articulations, your range will be compromised, flexibility is limited. In other words, air/breathing is the key that unlocks all musical elements.

I believe that it is a CRITICAL part of being a wind player, in addition, that it helps create a calm, focused rehearsal.

A student musician cannot create the proper tone without correct breathing - this is the basis for proper tone and must be addressed in every rehearsal

For wind players, particularly brass, it is my belief that breathing is at the core of everything else. Proper breathing, leads to proper breath support which helps with tone, intonation, as quality and variety of articulation

Tone production is priority #1.

ALL of it really.

Tonal resonance is the main reason we focus on breathing. We also utilize it for teaching them how to open up their sound and find new levels of their top dynamics.

Our fundamentals program relies on students producing a characteristic tone. Therefore, we teach proper breathing in order for students to achieve this. Breathing (when done in time) also achieve proper rhythmic approach to playing. Finally, air is the gas to drive the band car. It's everything.

Tone, articulation, intonation, and sound projection all benefit from breathing instruction

All of the above - we practice breathing so that our players remember to do it while in performance situations.

All of the above including endurance and pitch control (bending for intonation and steady)

Tone & intonation

Tone is the big one for us. The student must know how to control his/her breathing when they feel tired.

Tone, Intonation, Dynamics, Expression

Tone, intonation, dynamic quantification

All aspects of playing benefit from proper breathing.

Every aspect of playing a wind instrument is impacted by the breath. We teach that air is our medium.

Tone would be the primary reason for proper breathing technique, but in the end it affects everything. Articulation become less supported and less clear. Students begin to articulate heavier when using poor air streams because of bad breathing, and that begins to create brittle and forced starts to notes.

Bad breathing creates bad habits, especially for brass instruments, as they won't be able to achieve a certain range on their instrument, and because band kids are amazing they are always wanting to please their directors. Therefore, they will figure out a solution to getting out high notes, and then press and squeeze and tighten their embouchure, instead of using a proper fundamental air stream.

tone, articulation, intonation, phrase shape/direction, expression

Breathing is the foundation for all tone production on wind instruments. Physically, breathing has many marching-specific benefits. Because it is an aerobic activity, the physical demand is much greater than an indoor setting. Students must acclimate to playing through fatigue and an elevated heart rate. Breathing exercises condition students to use their air more efficiently and calmly, improving their ability to work through challenging physical conditions. The largest benefit of breathing exercises is tone production and immediacy of sound.

WIND players can not produce a full or appropriate quality of sound without proper breathing instruction.

Every aspect.

It directly affects everything about performing on a wind instrument - tone, articulation, intonation, phrasing, endurance - everything!

I think that VERY FEW students really understand proper breathing to perform at a high level. Too many of my colleagues feel it's just about volume, but proper breath support helps our students produce characteristic sounds, quality articulation, and appropriate shape of phrase.

All of the above

All and every aspect. Kids have no idea of how much more air they need to take in or how to train for it.

Proper air and breathing make up the core of everything that we do. Without breath support we have poor tone, articulation, intonation, and musicianship.

improving the tone quality of the students

All aspects of playing are affected by breathing. We practice breathing as a skill as to itself to improve tone quality.

Primarily for tone and intonation.

It certainly benefits tone and intonation on all wind instruments, more broadly - I need to be sure that my small band can still put out a quality sound at the end of the show.

Benefits all - tone, intonation, articulation, clarity, blend, etc.

The following improve with proper breathing fundamentals: tone quality, ability to sustain notes at correct volume, ensemble balance, intonation, musicality (notes sound like they have life due to proper sustaining quality), dynamics and control. Breathing also helps calm students in pressurized situations. We often teach metered breathing for the marching show and concert band material as a way to provide the student with a tool to control their affect in a performance.

Proper breathing improves all aspects of tone production and articulation.

It is impossible in my opinion to make resonant sounds that are in tune without proper air support behind the note.

Correct tone production is the primary reason I teach correct breathing. From correct tone, intonation improves significantly. From there, benefits include better ensemble blend, better control of dynamics, etc.

Everything. If the correct breath isn't taken, everything else suffers/doesn't matter.

Tone for sure! However, because using air properly is so important to all aspects of playing it just seems natural to work on breathing. It also is an athletic endeavor and marching band is athletic as well. Students need to learn to really move air and control inhale/exhale in extreme environments.

Wind is the essential component of the wind instrument.

Tone quality, phrasing, endurance

Having a visual representation for this generation allows many more to grasp the concept of how air flow and quantity of air impact the quality of sound that is produced.

Tone, intonation, and sound projection would be the biggest aspects which benefit from our focus on breathing. Our incorporation of breathing into a running/conditioning program also helps build endurance so the winds sound as strong at the end of the show as they did at the beginning.

More and proper air remedy multiple inherent issues that we as wind band teachers face on a daily basis. Tone, intonation, volume control, etc.

All aspects, but the main reason is to make characteristic sounds that project off the field.

Tone production and Intonation, Phrasing, Dynamics

Improves tone, pitch, balance, volume

We teach oral shape/tone development and articulation through breathing. (In addition to lung capacity and innercostal muscle development)

tone, articulation, intonation, muscle flexibility, stamina (musically and physically)

Tone, resonance, endurance, support/sustain, staying calm and relaxed

Maximize tone production and creating more vibration on all instruments. Foundation for breath support and an baseline for introduction of dynamic contrast.

Breathing is life dude.

Appendix 2B: Responses to Question #5

Please briefly describe your favorite breathing exercise or teaching tool for breathing.

We do an exercise where we constantly change the length of phrase we push air (exhale) as well as change the number of counts we pull air (inhale) - keeps students engaged and alert

Compressions

5-15-5

Breathe in a full breathe for five counts

Sip 15 times to increase lung space (therapy)

Exhale a full breathe for five counts

I usually will have the students use their hand out in front of their face to depict what the air is doing as it moves in and out of the body.

Flow - in 4, out 4 - no pause in between in and out - fully expanding

My woodwinds begin each warm up with inhale for a specific number of count, then exhale with a 'hiss' for the same counts: 4X8, 4X4, 4X2, 8X1.

I like everthing that Sam Pilafian and Patrick Sheridan have done with their Breathing Gym Series. I have no favorite.

Breathing Gym "Monitored Flow" exercises, using the hand to assist in measuring airflow and to encourage exhale support

We start with 4 in, 8 out. Then we expand the counts and add "sips" to completely fill the lungs. We also use "paper airplanes" and one we call "Hans and Frans." Always finish with a big breath in and a sigh!

I love flow exercises and the variety of benefits that come from mixing up and varying in-counts and out-counts to meet specific objectives.

Deep breathing led by conductor/student leader in slow un-metered repetitions with emphasis on rib cage expansion in three dimensions and fullness of breath.

Inside the Circle Breathing Exercise #4

Sizzle exercises I created based upon need

I enjoy therapy exercises from the Breathing Gym, but if I had to pick only exercise for my group it would be a simple "In 4, out 4" w/ variations on the count structure to shorten/length the inhale/exhale. This to me gives us the most flexibility in applying the fundamental skill to our music, it is easy to teach, and easy to understand. In addition, many peripheral concepts can be discussed through this exercise.

gym

inhale and fill up in 1 count, take 2 extra sips

exhale and empty in 1 count 2 extra puffs out

In 4, out 4, in 2, out 4, in 1, out 4; air flows through the longest instrument possible;

Breath in hold sip in, build a stretch then release. It's really not a favorite, its doing the same though simple exercises day in and out that lead to improvements in the quality of performance.

Our most widely used Breathing Gym exercise begins with in 4, out 4 and reduces the number of counts of both the inhale and the exhale. Other exercises from the Breathing Gym are also used.

We put into place the "double-sip" this fall, which I felt enabled our students to truly understand what a "full breath" actually feels like. We asked that in one count they completely fill their tank, and the subsequent second sip was to "top off their tank". I felt like this technique paid off dividends in our success.

We do an exercise where you breathe in on count 4 (maximum fill), push all of the air out for three counts (expel all air), and repeat over and over. We add resistance by pushing all valves halfway down on the brass instruments.

Anything from Breathing Gym or Inside the Circle.

Favorite exercise would be expansion, ie. breathe of fire, breath in, hold it, stretch your upper body, top it off, rinse, repeat, then control the exhalation for a set number of counts.

We do about 5 breathing gym exercises regularly - In sip sip, 5-15-5, Fight for air, Let it leak, Power breathing in addition to work with flow through various counts.

It's mostly conceptual. Flow rates vs Volume (how much) of air. We bring Pat Sheridan out for a clinic annually.

1/2" Breathing tubes to get the air moving, then use the left hand as a visual indication of the movement of air to and from the body

Flow Studies - 4s and 8s, 2s and 8s, 2s and 16s, etc.; hand in front of mouth vertically to 'hear the breath in' then extend the hand on the breath out. keep the shoulders down. expand the amount of air a student can both take in and move out. This is the most basic study that should be done with frequency. The should then be tranfered to flow studies through the instrument and then expanded to air studies with articulation through horn in with fingers.

The Breathing Gym videos provide the basis for our breathing exercise. I use various exercises from the series to address specific problems.

"Breathing Gym" exercises.

Using the breathing tubes has been a real great thing for us. We usually just vary the inhale and exhale durations, and try and assign a relative dynamic to each exhale duration (8 cts is Forte, 12 is Mezzo Forte, etc...)

We give them a 1/2 pvc coupling and have them do exercises with them (In/out 4/4, 4/3, 4/2, 4/1; 4/4, 3/4, 2/4, 1/4) and then create the same sensation without it.

The Breathing Gym stuff works well for our program.

We like the breathing tubes with metered inhale/exhale exercises for the brass.

Breathing tubes

We use a breathing tube with valve that allows changes in resistance. That has done wonders for our players.

In for X out for x. Varying the value of X

Many from the "breathing gym"

We rely on the breathing gym. I don't have a favorite.

At 106 bpm, we establish what it feels like to play at all dynamics by filling balloons at various speeds (pp is the sensation of filling the balloon over 24 even counts, forte is filling the balloon over 8 even counts).

Balloons and Breathing Tubes

1. Exhale completely then wait 15 seconds. Relax and allow air to fill the lungs.
 2. Exhale completely and then immediately take a full breath. Hold for 5 seconds and then take in four short sniffs to pack in more air. Do it a second time and then release the air.
-

Breathing gym is primarily where our exercises develop from. We do a lot of resistance training, we do what we call "quantitative air", where we discuss dynamics within numbers and air speeds. We have turned all of that into a breathing exercise that lasts about 2 minutes each day, where we remind the kids of a deep quality breath, how to fill up all of their "quadrants" in their lungs, and how to be calm and efficient with their air.

Exercises that require students to visualize their air, air speed, or direction or involve kinesthetic motion to reinforce concepts.

Exercises and variations from the breathing gym are valuable teaching tools.

We use breathing tubes early in the process to teach relaxation on the inhale and later when tension is present.

We use balloons to teach control, phrasing and dynamics.

Before we play, at rehearsals, at games, and at competitions, we have a breathing sequence that we use. It incorporates several breathing exercises adapted from The Breathing Gym.

We do a very simple one

In 4- Out 4 3 times

In 4- Out 2 3 times

In 2- Out 4 3 times

In 2- Out 2 3 times

sometimes we alter that and often include a visual hand movement with it

One I use regularly has 1 beat in, 7 out, palm in front of air stream and extend arm during the 7 beats, so they can feel the air pressure on the hand as it gets further. I find this helps them finish phrases without dying off.

We use a number of Breathing Gym exercises with the full ensemble throughout the year - both in middle school and high school. We like the simple IN4-OUT4/IN2-OUT4/IN1-OUT4/IN1-OUT9, as well as breathing with "sips" to help with awareness to vital capacity.

Singing! Students breathe in at different time intervals then sing pitches either in unison or harmony, followed by buzzing this pitch on their mouthpiece, then playing on their horns.

Resistance breathing, changing count structures, changing counts of breath between long tones, breathing block (running)

I like using resistance breathing to hear a good breath in and focused air out. I do this by going in for 4 counts/out for 16, in for 2/out for 24, and in for 1/out for 32.

using balloons to teach the students about consistency of air and starting a note.

4 in 4 out, 2 in 2 out, "sun goddesses: in 5 out 5, in 6 out 6 etc to 9's, full breath then sip, sip.

Various breath expansion exercises to increase depth of breathing. Various breaths to work on consistency of exhale.

We use the breathing gym for most of our exercises.

Breathe Dah. Expanding chest cavity to maximum and focusing on Dah attack

1/2 inch PVC ball valve. I have the students put turn the knob to 45 degrees or more, and then inhale and exhale using full capacity breaths over ever changing inhale/exhale values.

A combination of Breathing Gym, Inside the Circle, and breathing exercises that I have observed from watching Richard Saucedo or other great directors rehearse.

I use balloons every day. If I don't I mix it up with what I call are "In and Outs" that are exercises borrowed from Alfred Watkins, Director of Bands, retired.

I do a simple inhale for 4 counts, exhale 4 counts; inhale 3, exhale 4; inhale 2, exhale 4; inhale 1, exhale 4. With the balloons, it's inhale 2, exhale 12, both with balloons by themselves and with balloons on the brass mouthpiece shank.

Several. Change it up. Not enough time to write it all here.

My favorite exercise is "let it leak" otherwise known as "fighting for air". This is where you put the back of one of your hands over your mouth and breathe in while blocking the air passage. This is a work out exercise from Breathing Gym. This exercise promotes the fact that an instrument is usually in the "way" while you are breathing before playing.

breathing in as if sucking the the remaining drink from a cup through a straw. This helps kids feel the expansion

balloons

PVC pipes that have the knobs for resistance adjustment is my favorite device. We typically have the metronome on and give them a series of numbers to inhale and

exhale in time. This allows them to feel different amounts of resistance and ensure that pulse is a constant voice within them.

We do a lot of breathing to counts, varying whether we get longer as we go through the exercise (after running), shorter as we go, or alter counts only on the inhale or exhale (e.g. always a 1 count inhale, exhale going from 2 to 4 to 8... etc.)

Inside the Circle 8 to 1 (repeated) and 1 to 8 (repeated)

Mouth around the mp for brass players and half vale.

Flow awareness (breathing gym)

Breathe in 4 out for 4, then 3s, 2s, 1s. Also, Bows/arrows/paper airplanes

In for x, our for y. (As x gets smaller, make y more counts. Sometimes in for 1, our for 20, etc). Music is all about the control of an airstream over time.

embouchure formed, stationary and traveling hand, calm and steady air on the exhalation over increasing counts at tempi used in our production selections, modified "breathing gym"

Breathing Gym

Breathing Gym exercises. Sip Sip, Sizzle.

Telling students to focus on the sound and imagine the air needed to create that sound.

Appendix 2C: Responses to Question #8

Do you encounter any challenges when teaching breathing techniques to your marching band? If so, please explain.

Moving and breathing properly

Time is always a challenge. Making sure you devote enough time to breathing without letting it drag on and become monotonous.

Applying to instruments - needs constant reinforcement

Percussion need to be reminded to participate.

Yes, the tendency for wind players is to "force" the exhalation of air causing a tense and forced/tight sound. I have had to work on wind players releasing tension and staying relaxed while maximizing airflow through breathing.

Prior knowledge is not always consistent with the correct anatomical makeup of the human breathing mechanisms (diaphragm, lungs, ribs, etc.). Students often have a mixed understanding and definition of what happens when one inhales and exhales.

"Buy-in" or seriousness from students in some of the exercises...they are either: 1) uncomfortable and unfamiliar, or 2) embarrassed or silly, about performing the exercises at 100% effort in front of their peers. Usually we get past this, but it can take a few days/weeks. I also struggle with students focusing on APPLYING the fundamental skill in the context of music exercises, marching music, drill, etc. while they are engaged with many other physical/non-physical responsibilities.

At first the Freshman class see's it as "silly", but have quick buy-in when the upper classroom show that is a part of the fabric of our program.

Getting students to relax when they breath.

Younger students do not want to participate due to lack of understanding of the importance.

The ability to control the breath without resistance (ie-no embouchure)

Yes, freshman who have not been taught the importance of breathing. As a consequence, all kinds of bad habits are formed in order to make up for their lack of air. It takes months to fix.

Just when introducing it to new students who are not accustomed to performing breathing exercises daily.

Getting students to understand the sensation of proper breathing as opposed to how they breath when relaxing, and then translating that into useful air on their instruments. Teaching sensations is often the most difficult thing for me.

Really it's just about making sure the information is good and the kids are doing what they're supposed to. We have to WATCH them for tension and bad habits (and for cheaters)

They tend to equate "trying hard" or hearing their inhale as productive. This includes moving their bodies as if they are filling up. We talk about efficiency and where to fill up from and many get it, but some kids want to work harder, thus decreasing their efficiency.

Students often don't understand their true capacity. We spend much time getting them to understand that. Also, students don't typically understand the relationship between rhythm and breathing. Breath in time play in time is harder to accomplish than you think.

They do not take the proper breath when they start playing and or moving. Getting them to transfer the exercises is a daily challenge.

Dizziness

Simply understanding it is a physical activity like running. It must be practiced intentionally or no progress will occur.

Many young members are not ready to "buy in" when we start teaching the breathing.

When it is very hot and humid, the task becomes harder.

Students are trying to achieve the exercise and start to create tension in their upper body, throat, neck, and jaw. Students also may look like they're achieving the breathing, but in reality they are only doing half of what you're asking, so it's tough with a band of 300 to really determine if everyone is doing what we are asking.

As with many fundamentals, universal "buy-in" is a challenge sometimes. It can be difficult for students to see immediate benefit from these exercises. You must teach the students to trust the process and look for long-term benefits.

Generally speaking, I think students don't always understand the difference between "flowing" air into the instrument and "pushing" air into the instrument. Some inhale rapidly and try to exhale rapidly to create volume. We encourage a slower inhalation of air coupled with an efficient mix of air/embouchure pressure

Taking it seriously takes time and consistent practice.

Some students will not take it seriously.

If students haven't learned the fundamentals of air support, how to take a good breath, and then how to use that air, the band will never have a focused sound or good intonation.

in the summer when we introduce them, some of the newer kids feel uncomfortable with them.

Students tend to do repetitive breathing exercises without conscious thought.

The kids with asthma are always a challenge at first, but they quickly find that the breathing exercises really help their condition.

Decibel app - personal, class, section bests

Preventing students from raising their shoulders when taking deep breaths.

It is always the first skill set that is not thought about as others are layered on.

Getting students to "buy in". After that getting students to really "work out" and push their limits.

Kids that have not learned to fully inflate the lungs are more challenged

breathing is physical and some students do not connect the dots

Students getting light headed. Be weary of fainters!

The biggest challenge for us is the bigger the group, the harder to assess who is actually doing the exercises and techniques properly. Holding up sheets of loose-leaf notebook paper helps when working on certain exercises. Obviously, balloon procedures tell all, as well, although those techniques and exercises serve different purposes (i.e. blowing through resistance, etc.).

I have had a couple students pass out/hit the ground. Of course, then the explanation to the parent follows...

continuing to keep the body relaxed and balanced within the physical nature of marching and playing

Teaching them to stay breath correctly and adequately and without creating tension. Helping to understand/isolate their bodies to breathe most effectively, efficiently and accurately.

Students want to do what is comfortable. You have to constantly monitor and reinforce proper execution to get the desired growth.

Appendix 2D: Responses to Question #9

Do you see any drawbacks to including breathing instruction in your teaching? If so, please explain.

Some of the more intense therapies can cause dizziness. It is important to know getting your kids dizzy from breathing is not healthy. A lot of people misuse breathing exercises think if you make it really hard, you will get really strong. Awareness and efficiency should be the expected outcome, not brute strength and bigger capacities. Work with what you got.

You need to keep things fresh so the student stay interested. They also need to be pushed to work hard so they can feel the benefits.

They are beneficial, but can take a lot of time. The embouchure/air flow of the exercises don't work as well for reed players. I feel like they are most beneficial for low brass and flute players.

If taught properly, students could gain a uniform understanding of the anatomical workings of inhalation and exhalation and how it relates to sound production on wind instruments. The risk/drawback could manifest in the fact that every body may be shaped differently and students may not identify individually the workings of their organs/breathing system. Another drawback may be that instructors may not be able to guide students to the appropriate breathing techniques because physical contact with students is forbidden. Finally, as is the case in any lesson, there is a potential risk to having students misunderstand and apply the incorrect technique.

If tension begins to creep in, we address it immediately. All of the good work done with muscle building will be undone with tension.

Takes a A lot of time if you're going to do it right and commit to it.

They have to know "why" it is important before they buy in. For new members, this always takes some time and has some initial resistance.

Too much time can be spent on breathing and many times incorrect information is given.

Tension

Appendix 2E: Responses to Question #11

If you do teach about breathing with your non-marching ensembles, do you do anything differently with them than you do with the marching band? If so, please briefly explain.

I would do less air compressions and stamina exercises with a non-marching group.

I take more time on breathing on certain days and talk about concepts since there is more rehearsal time in concert bands.

The fundamentals are taught/learned/enforced during marching season so the need for regimented exercises is less.

The only difference would be the obvious. We don't do an 8x8 box breathing block during sit-down band.

I generally move faster. In marching band we do three or four exercises. In concert groups we do one or two.

We do a lot of things differently...we don't do many of the therapy exercises because the physical challenges are so much less in concert band. We focus mostly on relaxation, and replicating the air stream like it should be for each specific instrument.

It's less structured.... less tied to foot timing and watching drum major hands.. but the breathing fundamentals are the same.

We teach tapered releases with our air, staggered breathing techniques, and focus on matching section oral cavity shape/consonance.

We don't do the half valve exercise that I previously described.

Refine the air, more pertaining to the phrase and dynamic responsibility of a section.

We spend a bit less time on it during concert season.

Really not different, however, they are usually seated for these exercises, and more flow studies through the instrument than basic studies without the instrument. The marching exercises in July/August build for the rest of the year

Marching Band sometimes is marking time while breathing exercises are happening.

We are starting to use balloons this year for the first time. We have just started so I don't have a lot of data on how it's working yet

Releases are often different as is the initiation of pitch. In marching band, both have an “edge”—that is an absolute point in time where sound begins and ends. In concert, Chamber, or solo literature, those places (especially releases) must be less rigid and more massaged.

We may do this seated vs. standing

I remind my oboes not to use too much air.

The focus is more on the flow of air rather than volume of air. The top dynamic of an indoor ensemble is less than an outdoor ensemble, so volume of air movement is not as much of a concern. It is crucial, though, that students use calm and efficient air that is continuous. Exercises that encourage these adjectives are used in non-marching settings.

Sing more, we sing everything.

Not much of the physical aspects of movement (because of space), no breathing block!

In concert band and small group settings we talk about using the breath a little more in connection with tempo and within a section.

students are seated.

I include more detailed/advanced breathing exercises in concert band.

There are breathing exercises inside of some of the fundamental packets that we use. Important Ingredients by Dan Moore is one of them. It is nice to mix things up and use those occasionally.

You should teach inside the same as you do outside.

There's no running involved for the concert ensembles! :)

Wind ensemble does more exercises that take in max capacity while working on the control of the exhale. Simply due to working on the threshold of softer dynamics while maintaining all quality sound characteristics.

Focus changes from quantity of air to eliminating tension during concert band.

Just slightly reduced. More focused on air through the instrument.

slightly modified as it relates to the absence of movement/marching responsibilities

Not as physical.

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