

CHORAL BLEND

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Choral Blend: Best Practices Choral Directors Use to Develop a Unified Sound

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CHORAL BLEND

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ABSTRACT

The purpose of this empirical study is to investigate the variety of strategies that choral directors use to achieve a unified sound (choral blend). Each human voice is unique, and when voices are combined in the setting of a choral classroom, it takes some time and strategies to bring them together in a unified sound. There are a variety of strategies that choir directors may use. Some are more effective than others. The combining of known strategies may be the best practice for achieving a choral blend that is both acceptable to the director and healthful for the singer.

During this study, I surveyed a group of choir directors to determine which strategies they use most often and found most beneficial for achieving choral blend. This survey was posted to choir director groups on various social media platforms. The survey data was compiled and analyzed to determine best practices for choir directors to improve the blend and tone of their choirs. In the future, I plan to employ these same strategies in my classroom and to video record those for continued review and improvement of choral blend in my choirs.

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You have both inspired me to keep learning,
reminding me it's never too late to pursue my dreams.

Soli Deo Gloria

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Chapter One: Introduction

The human voice, in all of its complexities, comes in a variety of timbres and sonorities. At the beginning of each school year, the choral director is faced with the challenge of uniting all returning and new voices into a perfectly blended sound before the concert season begins. This is not an easy task.

In middle schools and high schools all around the world, students will be entering their choir classrooms with a multitude of unique vocal sounds and experiences. Some students will be entering for the first time with very little understanding of how to use their singing voices, while others will have had voice lessons and a variety of singing experiences. Some students will have rich, dark tones, while others may have breathier or brighter tones. Some students may have already developed vibratos, while others continue with straight tones, much like singers of Renaissance music. There will be students who have learned to use their belting voices in musical theater or who may even enjoy singing along with and mimicking the timbres and sonorities of their favorite pop singers. Because there are so many distinct voices, backgrounds, and tone qualities, creating a unified sound can be a challenge for even the most experienced choral director.

There are a variety of methods to use that help vocalists arrive at a unified sound. Some strategies may be considered quick fixes, such as teaching unified vowel sounds or asking the students to listen to one another and blend their voices together. These methods are certainly useful and helpful; but, pedagogically speaking, they seem only to scratch the surface of the best practices needed for the choral director and choir to work toward a more in-depth and consistent way of producing a choral blend: one that will both educate and ensure the vocal health of each student.

The strategy of asking students to listen in order to blend can present some problematic issues. Quist wrote in her doctoral dissertation that “While it is possible that the singer is doing more singing than listening, more often than not we ask our developed voices to match the tone of the less developed ones. (Quist, 2008, p.33) This seems to indicate that requiring students to match tones may bring the quality of the choral blend into a unified sound, but it may also cause the overall sound to lose its brilliance.

Foster (2007), points out in her paper on the Choral-Vocal Conflict that the director must consider several approaches to achieve a unified blend. It is with this statement in mind that I decided to pursue additional research on best practices for achieving choral blend. This empirical study will include a review of articles from experts in the field of choral blend, as well as survey results from choral directors citing best choral practices and their benefits.

Chapter 2: Strategies for Choral Blend

I started singing in choir when I was a sophomore in high school. I had no prior singing experience, but I attended a concert in the spring of my freshman year and was fascinated by the amazing harmonies and blend of one of the select groups. Right away, I knew that I wanted to be a part of this singing experience. I later became a part of both advanced groups, Madrigal Singers and Show Choir. I recall my choir director harping on us to “LISTEN” to one another so that we would blend. Honestly, I wasn’t really sure what I was supposed to listen for or what I was supposed to do.

When I arrived at college to study music education, my freshman choral director would spend much time in the rehearsal having us sing the *ah* vowel in descending pitches, pulling individuals out and telling them to match pitch and tone. Several of us were his voice students, so we seemed to have a free pass on this because we were already learning to sing with the same color and tone in our private lessons. His idea of uniformity was that all of our voices must sound exactly the same, or at least that was my impression. The final product, however, seemed to lack lustre and life. Quist (2007) wrote about this concept in her dissertation, explaining that if a director is seeking to create “absolute homogenous tone production,” (p.15) it may not result in the best sound. Each singer is unique and has specific ways of creating his or her best tone. *A one size fits all* approach may not be the best answer and could even inhibit the possibility of a beautiful blend.

During my undergraduate studies of choral techniques, the idea of choral blend seemed like this elusive concept that we were all trying to figure out. It wasn’t until well into my choral music career that I started looking more intently at the idea of choral blend and quickly learned that there were many strategies I had neither heard of nor utilized.

The ability to acquire an acceptable choral blend that is pleasing to the conductor, the singer, and the audience takes time and understanding. For the sake of this project, I will be focusing mainly on the conductor's role and the ability to use tried-and-tested strategies both to educate singers and bring them to a place of unified sound in their performances.

Choral Blend: What is it?

The unification of choral sound or choral blend is a concept that all choir directors seek to achieve, but the methods and strategies may differ greatly. Quist (2007) of Westminster Choir College says, “There are almost as many different concepts of ‘blend’ as there are choir directors.” (p.14). This certainly rings true. The subjectivity of the concept of choral blend brings about a variety of methods and focal points among choral directors.

In the book *Choral Pedagogy* (2013), Smith and Sataloff say that a blended sound includes:

- **Color:** No individual voices are identifiable. Also, a distinct sound quality typifies each section and the whole choir.
 - **Balance:** Individual choral sections are balanced within the tonal texture.
 - **Tuning:** Voice leading is accurate, resolving points of tension clearly, and pitch is accurate and consistent among sections.
 - **Diction:** Vowels and consonants are pronounced uniformly and can be understood by an audience.
- (p. 243)

Atkinson (2010) suggests that directors include “vowel uniformity, vibrato, choral formation, and strategic placement of singers.” (p. 25)

Similarly, Adam’s (2019) research primarily focused on the importance of acoustical placement discussing that placement is not only beneficial to overall choral blend but that it can also “lead to better vocal health for each singer by guarding against over-singing and addressing blend without altering individual vocal production.” (p.28)

This leads to the exploration of concepts and methodologies that will be discussed further in the remainder of this chapter.

Choral Blend and Voice Matching

Researchers and educators often discuss the importance of where to place your singers in the rehearsal room. Jordan speaks about this in his book *The Choral Rehearsal* (2007). Jordan (2007) recommends that choirs rehearse in a U shape so that students are able to hear each other. Listening to one another is certainly important for intonation, tone, and appropriate dynamic levels, but Jordan (2007) continues by explaining that the actual placement of each student within the rehearsal setting is a primary objective and concern. “Many pitch and ‘blend’ issues are the result of the lack of carefully planned seating arrangements designed for the choir. It can be said that a good choral blend and good pitch cannot be achieved without some seating adjustments” (Jordan, 2007, p. 59). It is with that idea in mind that choral directors have sought to figure out the best acoustic placement of each voice within their choirs.

Placing students in a specific shape or order will help the over blend of the group. Nonetheless, voice matching is a strategy that takes into consideration each singer's unique voice. Many choral pedagogues have written about and utilized this methodology with their choirs, giving credit to Noble as the influencer for this practice. In an interview in *The Choral Journal* (1991), Noble explains that he creates his seating charts by placing students with compatible voice types. “Compatibility is the key, and vocal ease is the great byproduct of this procedure” (Noble & Shrock, 1991, p.7). Although some directors think this is a highly subjective procedure (Aspaas, McCrea, Morris & Fowler, 2004, p.11), many directors still use it to create seating charts for their students, which has resulted in a more consistent choral blend.

Voice matching is a strategy that is attributed to Noble of the Nordic Choir at Luther College. In his DVD, *Achieving Choral Blend Through Standing Position*, (2005) Noble goes into detail on how to place voices within a choir. Others have adapted his ideas.

Atkinson (2010) explains it this way.

The first step in the procedure is to find two voices in a section that have a natural blend. Gradually, singers are added one by one until all singers in the section are in one horizontal line (p. 28).

Emmons and Chase (2006) describe it this way

Positioning the largest and best voices at the rear of the section ensures that their tone filters through the rest of the choir; the common tone of the section is improved; each singer hears him- or herself more accurately and other voices better; rehearsals and performance are easier for the big voices because they no longer must constantly hold back; and very small voices are not tempted to push. When the strongest voices are dispersed throughout the section, their effect on the aggregate tone is diluted, and those who stand in front are heard by the audience as a solo effort. In a sense, the effect of their singing gift is wasted (p.154).

Some studies would argue that voice matching is essential to achieving choral blend. Killian and Basinger (2007) conducted a study to see if vocal, instrumental, and non-music majors could determine what was good and bad blending of voice-matched choral groups. Although they felt further research needed to be done, they did see in their results that “in most cases, respondents could discriminate between good and bad blend” (Killian & Basinger, p. 323). Even the non-music majors could hear the difference when voices were matched.

Choral Blend and Spacing

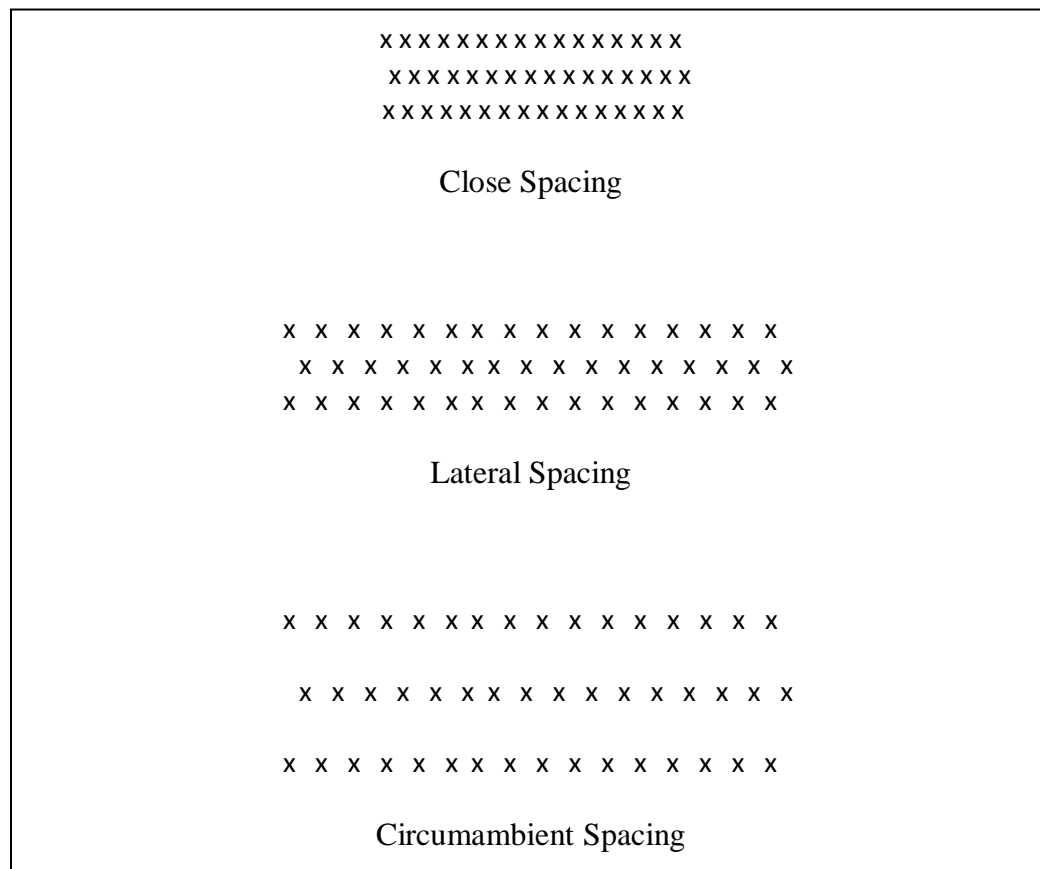
Because each choir member has a unique sound and strength of voice, accommodations should be made to allow for each vocalist to use her voice freely. Allowing for space plus overtone considerations between singers will help to accomplish this goal. Although spacing is

part of formation, it is different from voice matching in that it takes into consideration proximity among vocalists.

Daugherty (2007) conducted an experiment to see how singers and listeners would respond to the sound of a university chamber choir in three different spacings. Of the three types of choir spacing--close, lateral, and circumambient--findings seemed to indicate that spread spacing was the most desirable for the singer and allowed for better sound production. In fact, an interesting point from this experiment is that “95.6% of the choristers reported that they felt spacing influenced choral sound” (p.79).

Figure 1

Examples of Choral Spacing



(Daughtery, p. 70)

Daughtery (2007) goes on to say that the singers in the experiment preferred more space and found that it helped them with both vocal production and the ability to hear themselves sing.

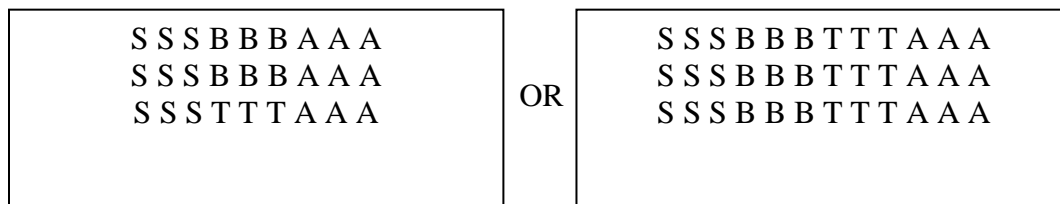
Choristers are not instructed to manipulate the vocal apparatus. They need not change the basic character of their individual voices in order to achieve the nuances in choral blend and intonation that spread spacing may afford. Moreover, spread spacing can be one means towards developing in choristers a sense of more independent singing, better balance between their own voices and the sound of the choir, as well as a more satisfaction in the choral sound produced (Daughtery, 2007 p.80).

In the book, *Prescriptions for Choral Excellence*, (2006) the authors, Emmons and Chase (2006), stated that, by positioning students with the largest and *best* voices at the rear of the choir, their tones will permeate the choir, causing even the smaller voices to find a common tone.

Jordan (2007) offers another consideration: the placement of each section of voices. Typically, during concerts, choirs are arranged in a block position as illustrated below.

Figure 2

Common Block Positions for Choirs

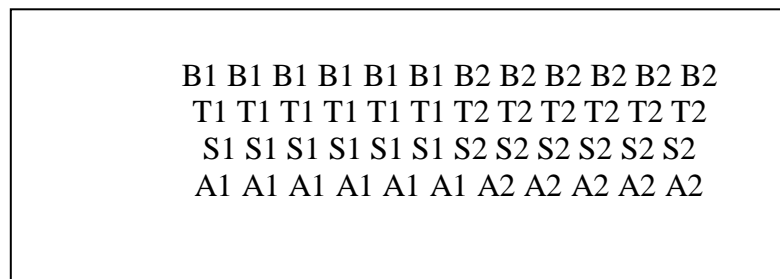


Of course, there are other variations of choral arrangements to consider, depending on whether the song is homophonic or polyphonic in texture. However, for the focus of this paper, they will not be discussed.

Jordan (2007) prefers a linear formation of the vocal parts, a seating arrangement concept that he learned from Noble. In this formation, the altos sit in front of the sopranos, allowing for better sound and hearing potential.

Figure 3

Linear formation of Choir



(Jordan, 2007, p. 61)

Jordan (2007) believes that this arrangement allows for larger voices to have freedom to sing within the space without causing tension: “they shouldn’t need to lessen their sound or be ‘shooshed’ by their conductor” (p. 62).

Choral Blend and Resonance

Another strategy to consider is the teaching of resonance through vowel modification. In this process, also known as formant singing, the student is instructed by the director in how to form vowels through opening the jaw, shaping the tongue, and generally shaping the inside of the mouth and vocal tract. The teaching of vowel formations can lead to a more consistent sound among the singers, thus aiding in achieving choral blend. Choral directors may have varying opinions on the “how to” of vowel modification; but, in the end, consistency within each choir is what makes unification more achievable and allows for a more resonant and beautiful

tone. Merely telling students to sing with an open sound or tall vowels, however, is not enough. In order to truly impact tone and cause a more focused and resonant sound, the student must be taught more about the physiology of the vocal tract; and the choir director must have a deeper understanding of what vowel modification means. For the sake of this article, I will not pursue more detailed explanation of the complexities of vowel formation and its effect on resonance, but I will share some thoughts as to why this method needs to be considered.

Quist (2008) says, “teaching a choir to use resonance for blend, intonation, and dynamics not only yields sounds that are electrifying and exciting, but also creates a healthy vocal environment for the individuals in the ensemble” (p.19).

Emmons and Chase (2006), also explain that “blend will come more easily by teaching the nonresonant voice to have more, not by asking the resonant voices to hold back” (p. 126).

The use of vowel modification brings about a tone that manifests itself in a way that is both pleasing to the ear and brings unity to the tone the choir presents. Resonance can give the choir a choral tone that is both rich and powerful.

Choral Blend and Vibrato

As defined in the Merriam-Webster dictionary, vibrato is “a slightly tremulous effect imparted to vocal or instrumental tone for added warmth and expressiveness by slight and rapid variations in pitch” (merriam-webster.com, 2020). This is a much-desired effect for the solo singer. It is a technique that should not be forced, but allowed to develop over time with proper, healthful singing technique. There can be quite a difference in vocal quality and tone between a singer with vibrato and one without. In a choral setting, this may present a challenge for achieving choral blend. In a larger ensemble, voices with vibrato can be placed within the section in such a way that they can still sing in full voice without carrying over the rest of the

group. Choral directors may also ask that a singer's vibrato be either limited or transferred to a straight or “pure tone.”

In smaller groups such as madrigal choirs or in ensembles requiring only one voice per part, the challenge can be greater. Daffern (2016) explores this conundrum in her study of the synchronicity of vibrato in an SATB quartet. During this study, the quartet was given instructions to focus on blend while performing a four-part Renaissance song. During the experiment, the vocalists indicated that they recognized that vibrato was something they were trying to control in order to blend. Daphne (2016) concludes that the singers appeared to reduce their vibrato in order to blend, but at times showed evidence of synchronization in their vibrato production within longer tones, “perhaps indicating that vibrato production is playing a role in blend in this quartet” (p. 10). This would seem to indicate that vocalists can naturally blend together when they are empathetic to each other’s vibrato.

Since choral directors may ask students to lessen their vibrato or even use a straight-tone, it is important to ask if this is a healthful alternative. Foster (2007) considers this a *false choral blend* or quick fix. In her dissertation she discusses that “singers who have natural vibrato in their vocal production actually have healthier voice habits than those without vibrato (p. 25). But it is important to note that not all vibrato is natural and some can be quite forced, which in itself can be harmful to the voice. In either case, the choir director needs to strike a delicate balance as to how and when to tell a student to use less vibrato.

Still, Daffern (2016) argues that directors who choose not to allow their students to use vibrato may be missing an important part of what a blended choral tone should sound like.

Foster (2007) would “encourage conductors to seek information and assistance in order to fully service their students and blend their choir the correct way with vibrato, rather than *in spite* of vibrato” (Foster, 2007, p. 26).

Choral Blend and Listening

Although listening may seem like a simplistic and obvious method for singers to use to achieve a unified choral sound, it is important for the choir director to guide the singer in understanding what to listen for. Smith (2016) wrote about this in his dissertation on comparing a select group of conductors' approach to the unification of choral sound. In his writings, he writes about the conductor of the King's College Choir and how he uses listening as a strategy.

Cleobury's first priority is to train his singers to listen to one another with the understanding that they must be “sympathetic” to their colleagues, or in this case, willing to change what they are doing vocally. He goes on to explain how he listens as a conductor to help the singers understand how they can listen and adjust (p. 27)

Research has shown that spacing can inhibit the ability to listen effectively causing difficulty in managing blend. This phenomenon, also known as the *Lombard Effect*, occurs when students are placed closely together, shoulder to shoulder. Students have a tendency to over-sing because they cannot hear themselves. Adams (2019) discusses this concept and the importance of choral formation helping the singer to listen adequately. She discusses the opinions of a variety of prominent choral directors, but finds that many would agree that “different formations may recalibrate the way the choir listens, which in turn can affect blend in a performance and the attention of the ensemble during rehearsal” (Adams, 2019, p.26).

While I have discussed five strategies for achieving choral blend, I am well aware that there may be other considerations. It is in the next chapter that I will be discussing how and to what degree most choir directors approach the issue of choral blend based on the five strategies discussed here and the possibility of additional strategies that the survey brings to light.

Chapter 3: Research Findings

A survey (Morris, 2020) was created to ask choral directors about methods they use to achieve a unified sound. The questions were designed to elicit information concerning conductors' education, training, teaching experience, strategies and methods.

Questions Regarding Education and Training

- What is the highest degree you earned in music education?
- Was voice your principal instrument while pursuing your undergraduate degree?
- If voice was not your principal instrument, did you take voice lessons in college?
- Did you learn strategies for achieving choral blend in your undergraduate or graduate studies?

These questions were included to understand how college music education coursework had played a role in the use of different strategies. Did choral directors receive specific training in choral blending techniques while pursuing their initial music degree? And did continued education allow for more training?

Questions Regarding Teaching Experience.

- How many years have you been teaching choir?
- Check all levels you have taught in your teaching career.
 - Elementary Vocal Music
 - Middle School Choir
 - High School Choir
 - College/University Choir
 - Community Choir

- Check all types of choirs you are currently directing. Directors could choose from a list of common ensemble structures as well as list their own.

These questions were included to see if there were any correlations between the choral director's experiences, both in time and ensemble variations.

Questions Regarding Strategies and Methods

- Check all strategies you have used to achieve choral blend.
 - Choral Configuration (seating sections in a specific order)
 - Voice Matching (seating individual students within their voice types SATB, based on tone, timbre, color, etc.)
 - Resonance (teaching students specific vowel formations)
 - Listening (asking students to listen, blend in, or sound like the voices around them)
 - Other
- In considering choral blend, what do you do with a singer who has a strong vibrato?
 - Seat them in a place where they are not easily heard.
 - Ask them to sing a straighter tone
 - Allow them to sing with vibrato, but ask them to sing softly
 - Other.
- What other strategies do you use to help a student with a strong vibrato blend with the ensemble?
- Please explain any other strategies or methods you use to achieve choral blend with the choir.

There were four choral blending strategies discussed in chapter two of this paper. These strategies were the most predominant topics found while doing research. Additionally, there were several references (Quist, 2008; Foster, 2007; Atkinson, 2010; Daffern, 2016) to vibrato and concerns about how this affected choral blend. Although coping with soloistic vibratos among choir members is not a general blending strategy, this topic was included in the questions to see how various directors handle this issue. Data gathered from the *Choral Blend: Best Practices Choral Directors Use to Develop a Unified Sound* survey (Morris, 2020) elicits a variety of results from the participants.

What is the highest degree you earned in music education?

The survey was posted to three social media platforms. A total of forty choral directors responded. Out of the 40 responses, choral directors held the following degrees:

Figure 4

Degrees Held By Directors

Educational Degree Held	No. of Directors	Percentage of Total
Bachelor of Arts	15	37.5%
Masters	18	45%
Doctorate	2	5%
Other	5	12.5%

In the *other* column, there was one Elementary Education major who had a minor in music. There was also one person who held a Master's Degree in Music History. An additional person said he had a DMA in Choral Conducting, and another had a Bachelor's in Music Education. Based on this information, it appears that everyone surveyed had a significant amount of music education. The choir director who had only minored in music and taken voice lessons had been a choral director for ten years. It is possible that she had less training, but her years of experience are important to note.

The degrees mentioned in the *other* category are closely related to the degrees specifically mentioned in the survey. Therefore, the directors in the *other* category have been moved into the other three categories. The DMA in Choral Conducting was placed under Doctorate, the Masters in Music History into the Masters category, and the remainder into the Bachelor of Arts degree category. This then gives the educational breakdown as follows:

Figure 5

Degrees Held By Directors Including Others Category

Degree Held	No. of Directors	Percentage of Total
Bachelor of Arts	18	45%
Masters	19	47.5%
Doctorate	3	7.5%

Was voice your principal instrument while pursuing your undergraduate degree? If voice was not your principal instrument, did you take voice lessons in college?

Only fifty percent of the choral directors surveyed listed voice as their principal instrument in their undergraduate programs. But thirteen out of the twenty who did not list voice

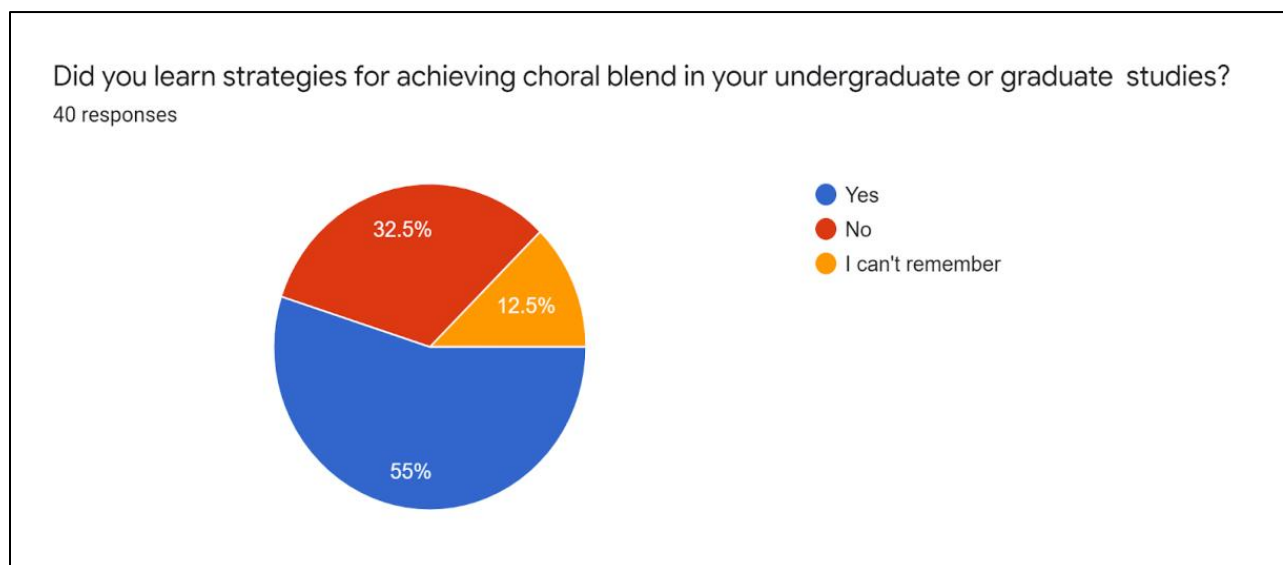
as their principal instrument said they had taken private voice lessons during their college training. There were six choral directors who indicated that voice was not their principal instrument nor did they take voice lessons in college.

Did you learn strategies for achieving choral blend in your undergraduate or graduate studies?

According to the survey, 55% of the choir directors said they learned strategies for achieving choral blend while pursuing a graduate degree. Only 37.5 % said they didn't receive any training, and the remaining 12.5% said they couldn't remember. It's important to note that 4 out of the 5 directors who said that they couldn't remember had been teaching over 20 years; so it is possible that they could have received training, but they were not sure of how or when.

Figure 6

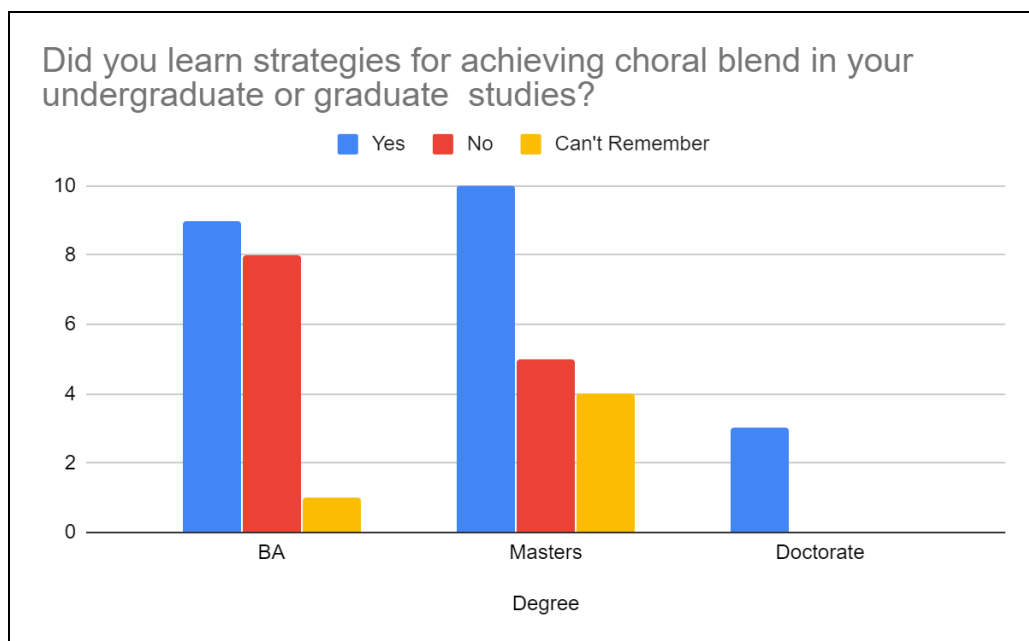
Comparison of Educators Learning Choral Blend Strategies in College



In comparing degree levels to the question about learning strategies in undergraduate or graduate studies, the survey revealed that the chances of receiving specific training in developing choral blend increased as degree levels increased. Although the doctoral group is much smaller in number, 100% of them learned strategies while at school. Directors with master's degrees also chose *yes* more when compared to directors with bachelor's degree programs. This would seem to indicate that higher education plays a role in the learning of various important strategies.

Figure 7

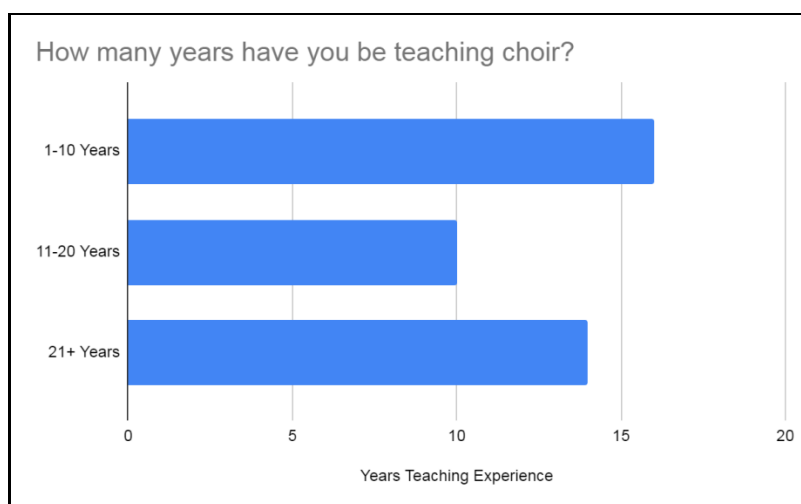
Comparison of Strategies Learned in College Based on Degree Earned.



How many years have you been teaching choir?

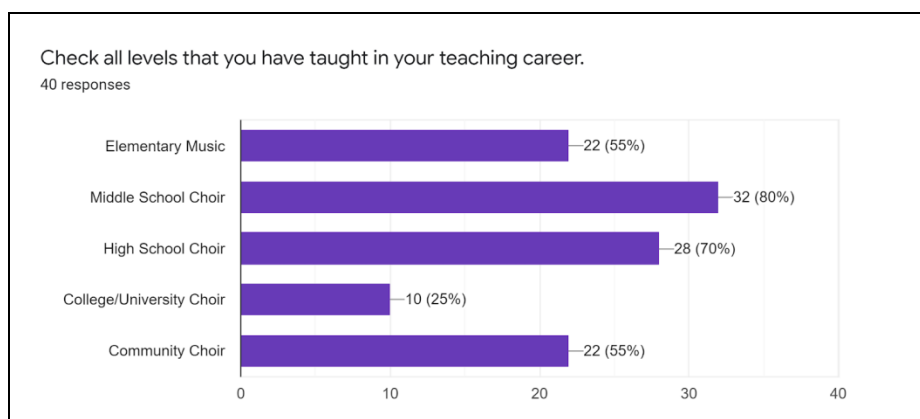
Most of the choir directors stated they had at least ten years of experience, with the highest being fifty-three years and the lowest being one year. The chart below shows the breakdown of teaching experience.

Figure 8

Teaching Experience**Check all levels you have taught in your teaching career.**

The choral directors in this study directed a variety of ensemble levels. The most common was middle school choir, with 80% of the directors teaching it. Additionally, 70% of the directors taught high school.

Figure 9

Choral Ensemble Levels

Check all types of choirs you are currently directing.

The most common was the SATB mixed choir, at 65%. The SAB mixed choir tied with the various types of treble choirs at 57.5%, with men's choirs after that at 30%. Show Choirs were taught by 27.5% of the directors, and Madrigal and Jazz Choirs were taught by 15%. After that, "various choir ensembles" was selected, but specific groups were listed by only one person.

Check all strategies you have used to achieve choral blend.

When choir directors were questioned about specific choral blend strategies being utilized in their classrooms, it was clear that most directors used the same strategies that were discussed previously in this paper. Listening was a strategy that 90% used, with resonance training being a close second at 87.5%. Choral Configuration was used by 85% of the directors and only 72.5% used voice matching as a strategy. Additional to these strategies, directors said they used the methods:

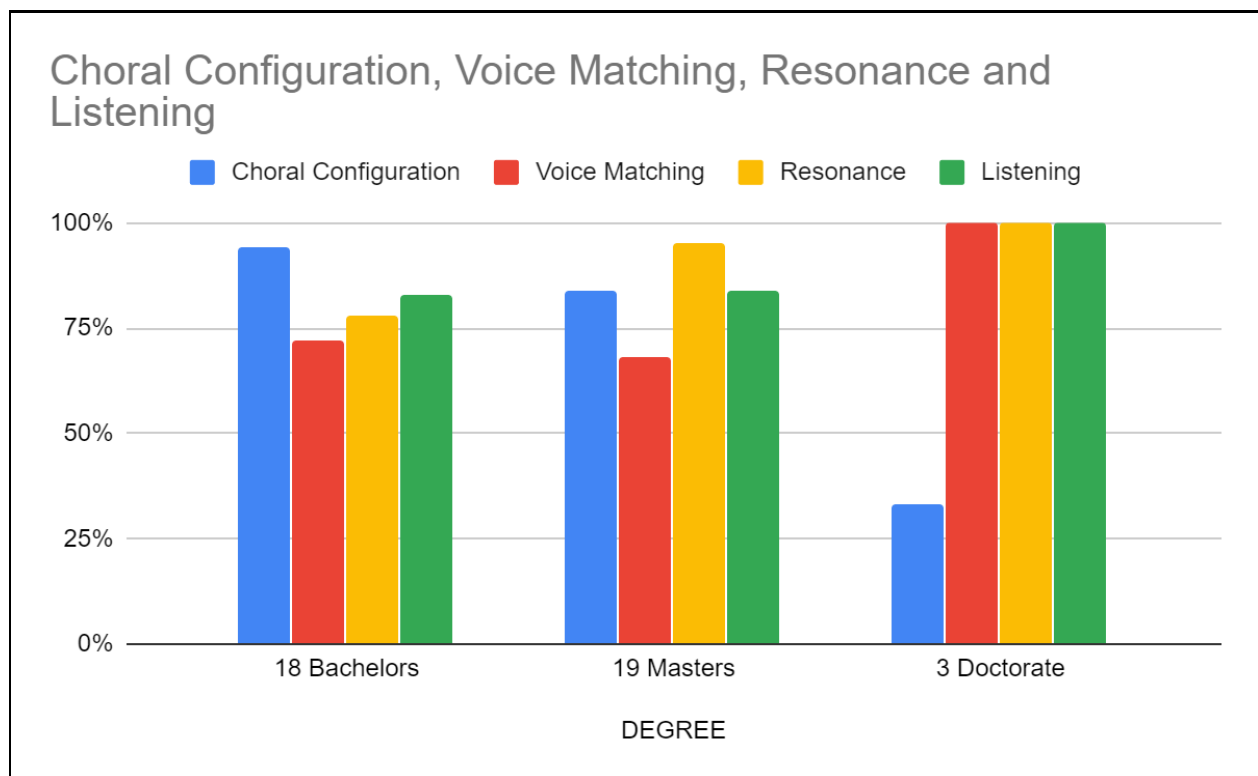
- I really move my treble singers around (within their comfortable ranges) to various voice parts. It helps them be more aware of their role in the choir and dramatically helps blend. It also avoids stereotypical 'section' attitudes that can develop. I move tenor-bass voices around as much as is possible.
- I have singers look at each other to match the shape of their mouths. Also facing each other increases listening.
- Blend = Same Pitch, Same Vowel, Same Intensity

In order to discover additional information about the director's use of different strategies, two comparison studies were looked at to see if either higher education or type of choir played a part in the choral director's choice of strategy use.

In the first chart below, strategy choices were compared to degrees earned. The directors with doctoral degrees all used voice matching, resonance and listening strategies. It is important to note that only 3 directors had doctoral degrees, but at this same time, the chart shows an increase in use of the three strategies aforementioned as degree earned increases. Another trend, evident in this study, is that the choral configuration strategy is shown to be used less as the directors degree earned increases.

Figure 10

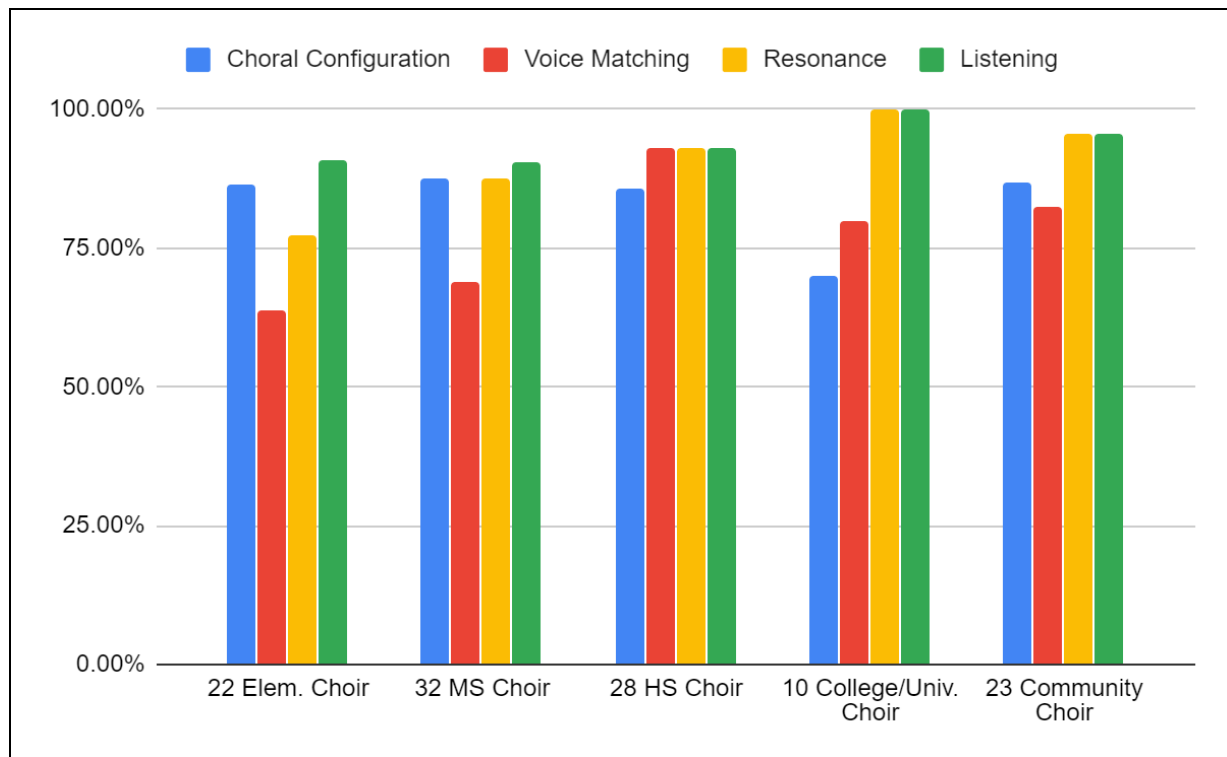
Strategy Use Comparison Based on Higher Education



When data was checked to compare use of strategies to type of choir a similar trend occurred. College/University level choir directors used less choral configuration and focused more on the other three strategies.

Figure 11

Strategies Use Comparison Based on Ensembles Taught



In considering choral blend, what do you do with a singer who has a strong vibrato?

A strong vibrato, if present, can cause some difficulty with blend. Strategies achieving choral blend with these singers seemed to vary in the research (Quist, 2008; Foster, 2007; Atkinson, 2010; Daffern, 2016), therefore it was interesting to find that 55% of the choral

directors offered different solutions from the three strategies that were discussed previously in this paper. Here is the breakdown of the strategies that were suggested:

- Ask them to sing a straighter tone - 47.5%
- Seat them in a place where they are not heard - 27.5%
- Allow them to singing with vibrato, but ask them to sing softly - 20%

What other strategies do you use to help a student with a strong vibrato blend with the ensemble?

Twenty-nine directors responded with additional comments on vibrato and choral blend.

Here are the suggestions that were made. Comments were combined based on similarity.

- **Listening**
 - Relax, listen and blend
 - Make them listen.
 - I usually sit them in an area where they can really hear themselves, perhaps on the end, which allows them to listen to themselves and tune in to the voices next to them. It allows them to hear their vibrato against the straight tone of the other singers.
 - I place that singer where they have to LISTEN with more intent.
 - Once they are listening, they begin to sing into the "sleeve of sound" that the choir has created. Ask the student to listen to voices surrounding him or her and to try to fit into the ensemble sound.
 - Working on blend with ALL singers.
 - I try not to single anyone out. I tell them that if their voice is the only voice they hear, they are too loud.
- **Positioning**
 - Place them next to a less vibrato-voiced person.

- Change part assignment.
- Move her around until her strength blends in with others. (I only have middle school so usually strong straight tone is more of a problem.)
- Always position them furthest from the microphones.
- Depending on what type of repertoire we're doing, I sometimes put them in the center of their section to encourage a fuller sound from the rest of the section.
- **Training**
 - Modeling; humming; practicing breath and volume control.
 - Work on vibrato and vibrato control/use as a choir.
 - Work with them on better breath support.
 - Focus on the pitch.
 - Shimmer, don't shake
 - Natural vibrato is a result of singing with no tension. Work towards less tension in group singing.
 - I simply encouraged good vocal technique. With my adult choir, I will ask for a straighter tone.
 - Model straighter tone.
 - I do a general demonstration by standing between two singers while all three of us sing a very blended "ooh", followed by me either modifying the vowel or singing with wide vibrato so that they can hear how a voice can "disappear" and blend with others if you listen and make the appropriate adjustments. If willing, I ask the "offending" student to take my place.
 - Work with the student on control of the vibrato (both depth and width).

- Sing through pitches with a tall, close-lipped w/v sound.

The results from this survey show that strategies to help a strong-vibrato singer are wide and varied. More research is needed to determine best practices in the area of choral blend and the strong-vibrato singer.

Please explain any other strategies or methods you use to achieve choral blend with the choir.

The last question in this survey was an open-ended question to discover if there were any additional choral blend strategies being utilized by choir directors. 17 of the 40 directors gave a response. Their responses are listed below. Some of the suggested strategies are similar in concept to the four already mentioned, choral configuration, voice matching, resonance and listening. For that reason, the additional strategies are organized to fit into four strategies mentioned previously. Suggested strategies that did not fit into the prescribed categories were listed under *other*.

Choral Configuration

- Circle rehearsals
- Singing in the round, circle sectionals
- Distance between singers. Ha - before social distancing was a thing. (I love it!)

Voice Matching

- I choose to intersperse stronger voices within a section so that strong voices are distant from one another and developing voices have a strong singer nearby to encourage their voices.

Resonance

- The most important for getting blend (and intonation) to me is unified vowels and pharyngeal space.
- Work on bright and dark timbres as a choir and sections.
- Sometimes I use vocal imagery to shape vowels with singers.
- Vowel shape! Resonance- creating open space in the mouth and head for the sound to become alive and resonant- unified vowels and resonant space are the keys to blend.
- Vowels, vowels, vowels

Listening

- Record the group, listen to the recording, correct thru modeling, re-record, listen to the first recording immediately followed by the corrected version. Analyze/discuss.
- A cappella singing....asking them to specifically listen for certain things

Other

- Choosing their voice part on the color needs of the piece and the abilities within each section. Takes a lot of planning, but it is worth it.
- It depends on what choral sound you wish to achieve. Sometimes, the song lends itself to heavier vibrato and I ask for more, but most times I seek a straighter, non-vibrato tone. Mostly I can just say “eliminate vibrato.”
- Video reflections
- Recording them frequently and having them evaluate themselves works wonders. Also programming different types of rep to challenge all students to explore new timbres and styles. And of course having them sing in circles and many other formations, placed according to what type of voice they are (core, color, musician, blend, bridge).

- Focus on precision of intonation, which does much to enhance the sonority of the ensemble.

Chapter 4: Reflections

The goal of this study was to determine best practices for achieving a unified sound through choral blend. Four distinct strategies emerged as the most talked about and used based on the research of choral experts in the field. Those strategies were choral configuration, voice matching, listening and vowel formation as it pertains to resonance. Choral blend and the effects of vibrato singing were also discussed among many researchers, so I included this concept in my study.

The choir directors were asked to choose which strategies they used, from a check box that included the four concepts mentioned earlier. It was interesting to note that the majority of the directors used these strategies.

It was interesting to compare usage of strategies based on higher education. When the choral directors were asked if they had learned these strategies in college, the answer varied among each degree. Bachelor degree holders said yes only half the time, Master degree directors answered *yes* more and Doctorate degree directors answered *yes* 100% of the time. This trend, combined with my own educational experience leads me to believe that these concepts may not be thoroughly investigated and taught in most B.A. experiences. It was certainly the case for me.

When choral directors were asked to check specific strategies an interesting and similar trend occurred. Choral configuration was mostly used by directors who held bachelor degrees. Those with masters used this strategy less and doctorates used it even less. This also occurred when comparing levels of ensembles to strategies used. Elementary choirs used choral configuration more but as the ensemble aged this strategy was used less and less. Voice matching, resonance, and listening were used by all the directors with doctorates and the use of these strategies diminished with each lesser degree. This is an interesting trend and causes me to

wonder if choral configuration is an easier fix that requires less educational experience. Voice matching and resonance strategies require more understanding from the choral director. The director must understand the voice and how to evoke sound that is both brilliant and able to blend. Listening can be a quick fix, but teaching the singer *what to listen for* can take time and training. So perhaps these three strategies are more used with singers and directors with more educational experience.

I also learned from the choral director survey that there were other strategies and concepts that could be considered when working to achieve choral blend. In fact, within each of the four strategies, additional concepts and ideas could be pursued. Some directors suggested recording their singers and having them evaluate themselves. Still others suggested a focus on intonation or singing *a cappella* for better listening. These concepts are certainly worth pursuing.

It was not uncommon for directors to speak about the same or similar concepts while using different terminology to explain them. For example, when the choral directors were asked to check which methods they used to help strong-vibrato singers blend, many chose the *Other* checkbox, but then went on to add an example that was a similar definition to one of the other listed strategies. I also found this to be true when reading additional comments about choral blend strategies. In the table below, you will see how some of these strategies showed strong similarities to the check box answers.

Figure 12

Similarities in Answers

Check Box Answer	Choir Directors <i>other</i> Answer	Similarities
Seat them in a place where they are not heard.	Always position them furthest from the microphones	Both answers could in effect, mean the same thing as the result is that the director does not want the student's vibrato to be heard.
Ask them to sing a straight tone.	Model straighter tone.	Even though one is asking them to sing a straight tone and the other is modeling what a straighter tone sounds like, the end result is that the student should choose a straight or straighter tone.
Resonance	Vowel shape! Resonance-creating open space in the mouth and head for the sound to become alive and resonant-unified vowels and resonant space are the keys to blend.	In this case, the choral director chose <i>other</i> . The answer is the very definition of resonance.
Choral Configuration	Distance between singers. Ha - before social distancing was a thing. (I love it!)	Spacing is one aspect of choral configuration.

Education, experience, and even age can contribute to how a director informs her choir about choral blend and unification of sound. Terminology and concepts can change through the years and that also includes the idea that strategies from one college to the next may change. As mentioned previously, there is evidence within this study that indicates that choir directors are in fact trying to reach the same goals, by using similar methods. Quist (2007), "There are almost as many different concepts of 'blend' as there are choir directors." (p.14). I commented on this earlier in this paper. This certainly shows itself true in the discoveries I made while working on this research project.

If I were to continue studying this topic, I think it would be of interest to ask further questions, like:

- At what college/university did you study?
- In what year did you graduate?
- If you did not learn choral blending strategies in college, how did you come to learn about the strategies you are using?
- What other strategies are there and how do you use them?
- In the strategy of Listening, what are your singers listening for?

In asking these questions, it would offer a clearer picture as to how these strategies come to use and why we as directors do what we do.

The pursuit of perfecting a unified sound in my choral ensembles has been a personal goal for many years. I have often sought advice from books and workshops, in order to achieve this goal. In the *day-to-day* of rehearsals it can be easy to fall into quick-fix strategies, but as a life-long learner, I want to be able to make improvements by choosing well researched strategies that are effective and healthy for the singer. I also wanted to find out what other choral directors were doing in the realm of choral blend. Through this research project, I have discovered more about the science behind why certain strategies work, giving me more confidence to continue to use the strategies I already use and to begin to utilize additional strategies from this study.

What now?

The new knowledge gained from reading articles on choral blend and the advice from several choral directors will help me to be more intentional as I move forward in teaching next year's choir. I have used choral configuration, voice matching and resonance strategies with my choirs, but I now have more information and understanding to use them more effectively. I also

plan to incorporate more of the listening aspects of choral blend. Understanding the phenomenon of the *Lombard* Effect and how closed space can affect how students hear themselves, prompts me to want to change the seating in my room to give more space for listening.

My plan is to conduct additional studies with my students and to educate them on the strategies learned about in this paper. This was part of the original plan for my research. Although, Covid-19 pre-empted the study of achieving choral blend with my choir, it has allowed me time to become more educated so that I can teach from a place of understanding and skill that will only benefit my students all the more.

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