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Sight-Reading Curriculum Consistency in Oklahoma High School Choirs

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ABSTRACT

This study addressed a gap surrounding high school sight-reading accuracy and how it is influenced by the consistency of sight-singing curriculum used through middle school and high school. Previous studies have not tested this specific factor, and few studies have researched factors that influence both middle school and high school choirs. The question addressed was: to what extent is there a correlation between Oklahoma high school choirs receiving high scores at the district sight-singing contest in the 2024-2025 school year when using a sight-singing curriculum that is the same as the curriculum used by the middle school choir most connected to the high school? Data regarding sight-reading score, curriculum consistency, and various confounding variables was collected through a digital survey from choir teachers across Oklahoma. High school choirs had received the scores from qualified judges at district contests. After performing a Levene's Test (insignificant) and a Welch's *t*-test (insignificant), it was determined that this factor is not supported by statistical analysis as a variable that influences sight-reading score. Due to various confounding variables, such as small sample size, the outcomes of this data cannot be considered concrete until more research has been performed. Overall, this study sheds light on an under-researched part of sight-reading knowledge: factors that affect–or do not affect–sight-reading accuracy through middle school and high school choirs. Future research could utilize different tactics (new scoring system, interview data collection, etc.) in order to gather more comprehensive data and gain a better understanding of this research gap.

INTRODUCTION

The question being addressed in this study is: to what extent is there a correlation between Oklahoma high school choirs receiving high scores at the district sight-singing contest in the 2024-2025 school year when using a sight-singing curriculum that is the same as the curriculum used by the middle school choir most connected to the high school? In high school (HS) choirs, sight-reading is a skill that choir directors teach to their students, because it is a valuable ability for all musicians to have, and it is usually used to practice or sing through new music. Özgür Eroğlu, Atatürk University music professor, references Randall, who defines sight-singing as "the performing of a piece of music on seeing it for the first time. The ability to

sing…without the aid of an instrument" (as cited in Eroğlu, 2022, p. 71). The words sight-reading and sight-singing will be used interchangeably because they mean the same thing for choral singers. Multifarious resources and curriculum types exist for choir directors to teach their students how to sight-read, but there is a research gap surrounding the consistency of curriculum used through middle school (MS) and HS. Many studies have highlighted what factors influence the accuracy of sighting in MS and HS choirs. Few have actually tested how factors that influence both MS and HS influence HS sight-reading accuracy (most studies only look at MS or HS factors individually). Determining what variables affect sight-reading accuracy would assist teachers as they plan curriculum and organize teaching methods for their choirs.

LITERATURE REVIEW

Sight-Singing

Sight seeing is when a singer is handed a piece of music, given a starting pitch, and then asked to sing the full song without any assistance from an instrument. It is an alternative to rote learning, which is when a singing part is played on an instrument and memorized by the singer, as defined by Melissa Amkraut, Florida International University choral music graduate student (2004). Sight-singing is taught to singers ranging from elementary ensembles to university choirs and beyond (Carlson, 2019; Giles, 1991). Singers must have an understanding of how pitches–sounds that can be heard as moving up and down–relate to each other. Pitches are shown as notes sheet music where singers can visually see and follow the moving notes. There are methods people can use for sight-singing that facilitate this understanding of pitches.

Sight-Singing Method Chart

Sight-singing System	**Syllables Used for Singing**	**Key Changes**
Letter Names with Moveable-do	A, B, C, D, E, G, F (regular line names on a staff)	This method has "Do" remain on the first note a music scale that changes with the key.
Numbers System with Moveable-do	1, 2, 3, 4, 5, 6, 7 (replaces letter names on a staff)	This method has "Do" remain on the first note a music scale that changes with the key.
Solfege System with Moveable-do	Do, Re, Mi, Fa, So, La, Ti (replaces the letter names on a staff)	This method has "Do" remain on the first note a music scale that changes with the key.
Letter Names with Fixed-do	A, B, C, D, E, G, F (regular line names on a staff)	This method will always have the syllable "Do" on middle C

		regardless of the key.
Numbers System with Fixed-do	1, 2, 3, 4, 5, 6, 7 (replaces letter names on a staff)	This method will always have the syllable "Do" on middle C regardless of the key.
Sofege System with Fixed-do	Do, Re, Mi, Fa, So, La, Ti (replaces letter names on a staff)	This method will always have the syllable "Do" on middle C regardless of the key.

Note: some information was included from William Winnick's "Hybrid Methods in Sight-Singing" (1987).

Amkraut (2004) found that teaching music with sight-singing caused a MS choir to score higher in sight-singing than the choir that was mainly taught music with a rote method. This shows practicing sight-singing on more material, or simply for more time, can improve a choir's skill. Sight-singing is often done in group settings while warming up for a rehearsal or demonstrating skills at a contest. There are different curricula (digital, commercial, organization-sponsored, etc.) that music directors can use to teach their students to sight-sing. As Dr. Rachel Carlson, director of choral activities at Kean University, specifies in her study of professional choral musicians, sight-singing is a valuable skill used in collegiate and professional contexts (2019). While many aspects of sight-singing have been examined, there are still areas of knowledge within the field that are inconclusive or unknown that should be explored.

Factors Influencing Sight-singing

Many factors influence the accuracy of sight-singing on individual and group levels. Steven Demorest, professor at the University of Washington, and William May, professor and editorial board member, examined how outside factors influence individual sight-singing (1995). Chorus director Lara Brittain (1998) claims studies examining factors affecting individual sight-singing success often have "conflicting or confusing results" (p. 12). I will be focusing on factors more related to group accuracy. In group sight-singing, imitation is where a few members of a choir can sight-sing well, and other students simply mimic their sound (Brittain, 1998). This can allow a choir to sound excellent in group sight-singing, but the individual singers may not be as proficient when sight-singing alone. Another factor that can influence a full choir's sight-singing skill is the amount of time they spend practicing sight-singing. Author Robert Cutietta believes just "two minutes of daily drill can increase singing confidence," while professor Paul Cappers suggests choirs should have no less than "two class meetings per week" (as cited in Brittain, 1998, p. 13; Cappers, 1985, p. 47). Some research has been done to see how different teaching methods and curricula affect the proficiency of sight-reading in musical settings (Baker, 2011; Smith, 2015). In Dr. Michele Henry and Colleen Petty's article, they found that using technology to teach sight-singing to middle schoolers had slightly higher success than using traditional sight-reading books (2014). Though much has been discovered, it has not been researched if using the same sight-singing curriculum (regardless of which one) through MS and HS affects sight-singing proficiency. In my study, I explored how this factor affects group sight-singing scores from contests judging their accuracy.

Sight-Singing Method Debate

There are multiple studies on the effectiveness of different sight-singing methods (not curriculum), many of which have conflicting results. In Demorest and May's study (1995), they found "no significant difference in individual sight-singing" when choirs used either a movable-do method or a fixed-do method (p. 158). Yet, they did another study (1994) and found that different sight-singing methods did make a difference (as cited in Brittain, 1998). Even when performed by the same researchers, studies have not shown if one sight-singing method is significantly better than another. Writer Cornelia Yarbrough notes how "the number of studies on the effectiveness of these methods is too limited" (as cited in Eroğlu, 2022, p. 71). Usually, the approach to selecting a sight-singing method, along with the curriculum they use to teach it, is left to the opinion of the teacher. For these reasons, the sight-singing method used by the HS will not be considered a variable that affects the accuracy.

Contest Sight-Singing

Oftentimes, MSs and HSs participate in some kind of district/state contest where sight-singing is performed by choirs and scored by judges. In Oklahoma, many choirs participate in district contests for scores. My research question is specific to both Oklahoma and to district contests because contest procedure can vary state to state, and plenty of HSs participate in the district contests. Demorest and May selected schools using the Texas state contest system as an indicator of group sight-singing proficiency, and they made note of the schools' scores from state contest (1995). Though they noted that the schools were skilled as a group in sight-singing, they did not use the scores in any analysis. In my study, I used the district contest scores as measurement of sight-singing ability and performed a statistical analysis on them in relation to the schools' curriculum alignment.

Teacher Influences

Choir directors play an important role in the musical development of their students through MS and HS. They select music, choose curriculum, organize class time, and have the opportunity to teach students valuable skills. Sight-reading ability is a crucial skill for a singer, so MS and HS teachers should consider putting significant emphasis on teaching it (Carlson, 2019). Kaylie Calogero, University of Millersville graduate, stated in her work that HS students were in their music classes for some 720 hours over their four years, yet they were leaving "not musically literate…" (2024, p. 6). Choir directors hold a wealth of knowledge in music, and it is their job to share that with their students. Increasing emphasis on performance-based learning is a common issue, and it is usually done to please parents and administration, as researched by music education board member Bryan Nichols (2013) and others (Calogero, 2024; Demorest & May, 1994). Associate professor at Auburn University, Jane Kuehne, found some teachers put less emphasis on sight-singing because it often does not directly contribute to the learning of performance music immediately (2007). It can take time for a choir to become skilled enough in sight-singing to be able to learn performance music using it, and some teachers prefer using the rote method because of the quicker outcomes. Some studies have been done to compare the effectiveness of different sight-reading curricula, but it is the teacher's responsibility to select resources that are best for the choir (Baker, 2011; Petty & Henry, 2014). These studies have not examined if keeping or changing the curriculum from MS to HS has any affect on the proficiency of the HS choir, and contest scores have not been used in these studies. To allow their students to be properly prepared for music opportunities beyond

the HS classroom, teachers should base the classroom setting around the students' musical development, not the performance.

Middle and High School Choir Relationships

There are no studies that directly explore the relationship between HS and MS sight-singing curriculum consistency and how this affects HS sight-singing proficiency, and district contest scores have never been used as a measurement of accuracy. In Kuehne's article, one of the survey questions she sent out to MS teachers asked if they believed sight-singing should be taught because the "high school teacher who recruits the students expects it," and few teachers believed this was important (2007, p. 121). Similarly, Nichols found that only "7.5%" of teachers used their sight-singing method because the HS uses the same one (2013, p. 93). These studies do not confirm a total disconnect between MS and HS choir programs, but they reveal an important area that is under-researched. Most existing studies only look at HS or MS programs independently; very few compare the two (Baker, 2011; Nichols, 2013). This distinction is important because one consistent curriculum (or vice versa, with multiple curricula) could influence the pace at which students develop good sight-singing skills. The goal of my study was to find the connection between scores that schools receive at district contest and the consistency of sight-singing curriculum through MS and HS, as this area has not been researched as other factors.

METHODS

I used a mixed method to answer my question. Mixed method research is defined as "the integrated use of quantitative and qualitative in the same study…" (Palinkas, 2012). My survey was a mixed method because I needed to collect qualitative data about sight-singing curriculum, confounding variables, and quantitative data about contest scores (survey in Appendix A). Collecting data about sight-singing curriculum and score allowed me to use a statistical analysis and determine to what extent, or if there even was, a difference between the groups I was testing to truly answer my research question. Data regarding confounding variables was also important to my research because it allowed for further specification on the limitations for my research question. A survey was the best tool for this study because it was more efficient than personally interviewing teachers, and it seemed more likely to have more responses. Rather than attempting to score sight-reading accuracy myself, using pre-assigned scores from qualified directors was best for accuracy. Several studies collecting information about choirs have also used surveys to gather data (Kuehne, 2007; Nichols, 2013). This survey was sent out to OkMEA[1] members who participated in district choir contests in 2025. The questions relating to my independent variable (sight-singing curriculum consistency) and dependent variable (contest scores) were required free response and multiple choice questions, and the questions concerning confounding variables were optional free responses/multiple choice. The independent and dependent variables were used in Welch's t-test, while the confounding variables were analyzed descriptively in the analysis section.

[1] Oklahoma Music Educators Association

Sample Size

A mass email was sent out to teachers involved in OkMEA. The email is included below in Appendix B. Professors Buonviri and Paney went through College Board to gather a list of AP Music Theory teachers as their test subjects, and I also chose to go through a larger organization to obtain my sample population (Buonviri & Paney, 2015). To receive responses that would most accurately represent the population, the survey was sent to this whole organization so that the data would be as evenly distributed as possible. Though this yielded a relatively small sample size, the population was as unbiased as possible under the circumstances. The sample size ended up being 25 schools. A consent form was included with the survey (reference form in Appendix C). Responses were returned to me with the name of the teacher, but all identifying information was deleted on a specified date (February 6th). Specific districts will not be listed to further protect the privacy of the respondents. I used schools that participated in multiple district contests so that I can have enough respondents for a proper statistical analysis, though this means that the different districts had different judges for their sight-singing scores. This concern is covered in my assumptions section, but I believe that having enough respondents to do a proper analysis is more valuable than having fewer schools that had the exact same judge.

Questions

Information at the top of the survey is listed in Appendix A. Two questions clarify that the teacher's choir participated in the contest in the correct year, if they had a mixed/treble choir, and what sight-reading method they used. My independent variable was obtained through three questions: what sight-singing curriculum the HS used, what the names of the feeder middle school(s) was/were, and what the MS sight-singing curriculum is. There were five options that could be chosen for the curriculum (see Appendix A). These were the options listed because they seemed to encompass all the possible categories that teachers may have used. If the MS curriculum was unknown by the HS teacher, a separate survey to the MS teacher that included a consent form/questions about their curriculum and sight-singing method (reference MS survey/form/email in Appendices D, E, & F). One question asked the HS teacher what score they received in the sight-singing room, which was my dependent variable. These questions covered all the information I needed to perform my statistical analysis.

There were also optional questions covering variables that could influence scores that schools receive at district contest besides their sight-singing curriculum congruency. I asked two questions about how often they practice sight-singing in class because both Brittain (1998) and Cappers (1985) state that practicing sight-singing more will increase accuracy. It has also been noted by another of Steven Demorest's studies that teachers often start practicing sight-singing as contests get closer (1998). This is another reason to clarify about sight-singing practices. One question asks the teacher to specify what grades make up their choir, and this is important because the choir could be all younger students who are less familiar with sight-singing. I ask how many years of experience the choir teacher has because it is one of my hypotheses that more experienced teachers will likely get higher scores. There is a question that clarifies if the HS and MS choir teachers are the same for the school because this would suggest that the students would know how to sight-read well because of the length of time they have had the same teacher. Finally, I have an open ended question where the teacher can write anything extra about their choir.

Assumptions, Limitations, and Implications

Going into this study, I had to make several assumptions regarding my responses. I assumed responses would be truthful and as accurate as possible, singers were putting in effort at the 2024-2025 district contest, and that the judge at that contest gave fair scores. There are also limitations to my study. No questions relating to lower school sight-singing training are in my survey, even though music professor James Reifinger Jr. suggests learning sight-singing then could affect a sight-singer's proficiency (2012). I did not test individual confounding variables that affect singers sight-singing abilities, as some other studies have done this (Demorest & May, 1995). This is because I believe it would be unrealistic to ask teachers to give surveys, student consent forms, and parent consent forms to their students and expect them to have everything back and submitted to me within a short window of time. This leaves me with confounding variables that are unaccounted for, but some group factors will help to compensate for this loss. Vocal imitation will help balance out the sound of the choir in sight-singing even if some students are more skilled than others (Brittain 1998). If there proves to be some correlation between using the same sight-singing curriculum through MS and HS, then that could be important for choir teachers to know. It could help them decide to potentially change their system for the benefit of their students in the hopes that some of them will learn to sight-sing better with time and consistency. If a correlation is found, then it could also encourage teachers to put more emphasis on sight-singing to increase success at things like sight-singing contests, but also in the everyday classroom. If no correlation is found, then it would support that teachers should continue to use whatever curriculum they believe to work the best for their students.

Hypothesis

My primary hypothesis was that schools who used the same sight-reading curriculum through MS and HS would consistently receive higher scores because the students have been learning the same material for the longest time, and I believed this would allow them to best master how to sight-read. My secondary hypothesis was that teachers who had been teaching for longer would consistently receive higher scores in their choirs because they would be very familiar with their chosen curriculum and other confounding variables would not influence their teaching ability as much as a younger teacher.

DATA

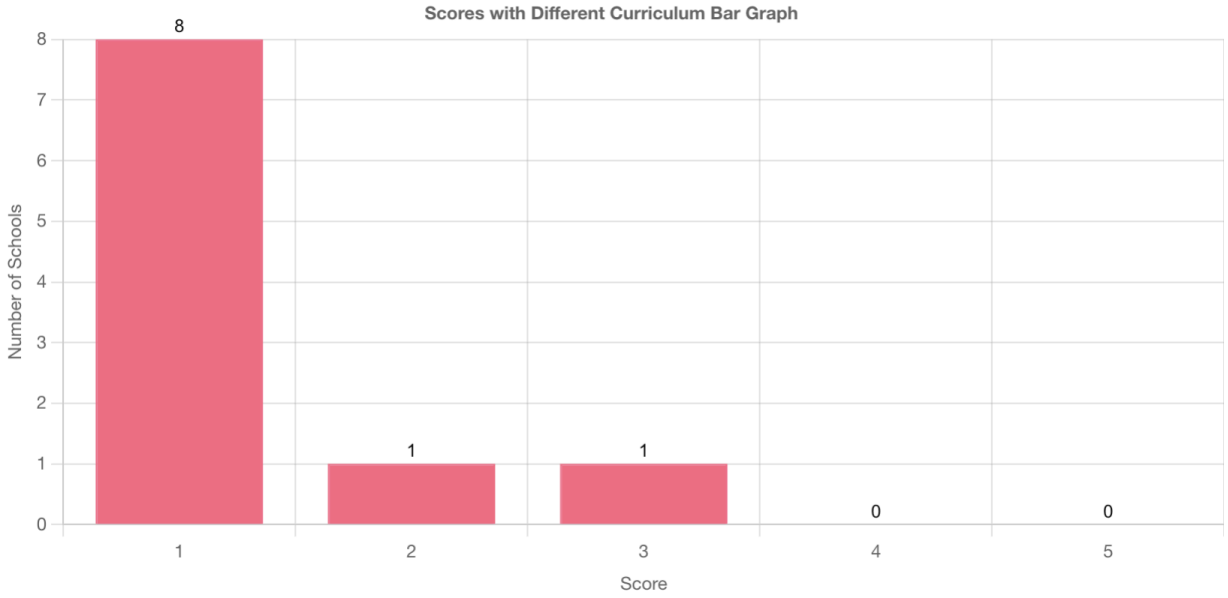
25 people responded to the HS survey. An exhaustive table is included in Appendix G that shows all de-identified data gathered in the surveys. Personal information was kept in a table with the data until February 6th, and then all personal information was removed and the data was deidentified. Sample sizes were uneven (10 responses were for different curriculum; 15 responses were for the same curriculum). Only 2 of 25 schools had choirs that were not made up of all grades, though these outliers were only lacking freshmen singers. Only two choirs had treble choirs (all female); all the rest were made up of male and female singers. 19 of 25 respondents taught both choirs, and the rest taught only HS. Every school used the same sight-singing method (not curriculum, but syllables and key rules) in middle school and high school; only two schools used methods other than moveable-do with solfege. The following two graphs are representations of how many schools received what score at the various contests using either

the same or different curriculum. The two graphs are split up according to their respective curriculum consistency.

Graph 1

This table shows the number of schools who received what score while using the same curriculum through MS and HS. The total sample size in this group was 15.

Graph 2



This table shows the number of schools who received what score while using different curricula through MS and HS. The total sample size in this group was 10.

It is important to note that the sample sizes in Graphs 1 and 2 are different. They share nearly the same number of schools who received ones at the contest, and the distribution of schools who got other scores in both graphs must be viewed while remembering that sample sizes are uneven.

The data in Tables 1 and 2 was adapted from the teachers' responses to make the information as clear as possible. The score, frequency of practice, and teacher experience are all listed together so that any potential trends from these major confounding could be easily identified for the analysis section.

Table 1

Schools with Same Curriculum	Score	Frequency of Practice (Class meets this number of days a week)	Teacher Experience
School 1A	3	Most everyday (5 days a week)	40+
School 2A	2	4 days a week (5)	40+
School 3A	2	Every rehearsal (2)	20+
School 4A	1	1-2 days a week in Fall, nearly everyday in Spring (4)	Less than 10
School 5A	1	Everyday (5)	10+
School 6A	3	Everyday (4)	20+
School 7A	1	Nearly everyday (5)	30+
School 8A	1	3 days a week, then 5 starting 2nd quarter (4)	30+
School 9A	4	Last half of fall semester into Spring (5)	Less than 10
School 10A	1	2-4 times a week (5)	30+
School 11A	1	Everyday (4-5)	20+
School 12A	3	3 times a week in 2nd quarter, more in Spring (5)	20+
School 13A	1	Most days in Fall, everyday in Spring (3-4)	10+

School 14A	2	Everyday (5)	30+
School 15A	2	Some in Fall, some in Spring (2-3)	Less than 10

School names have been deidentified and listed with scores and these two factors (practice frequency and teacher experience) because these were the confounding variables that seemed to influence the score the most. The table shows the confounding variables with schools who used the same curriculum through MS and HS.

Table 2

Schools with Different Curriculum	Score	Frequency of Practice (Class meets this number of days a week)	Teacher Experience
School 1B	2	Everyday until contest (4)	Less than 10
School 2B	1	Some in Fall, 4 days a week in Spring (5)	30+
School 3B	1	1-3 days a week in Fall, 3-4 days a week in Spring (5)	20+
School 4B	1	4 days a week until contest (5)	Less than 10
School 5B	3	Fairly often in Spring (3-4)	10+
School 6B	1	3 days a week in Fall, 2-3 days a week in Spring (5)	30+
School 7B	1	Most days in Spring (5)	Less than 10
School 8B	1	4 times a week (5)	30+
School 9B	1	Everyday (5)	30+
School 10B	1	Everyday excluding theatre tech weeks (2-3)	30+

School names have been deidentified and listed with scores and these two factors (practice frequency and teacher experience) because these were the confounding variables that seemed to influence the score the most. The table shows the confounding variables with schools who used different curriculum through MS and HS.

ANALYSIS

General Discussion

The chosen method yielded results that were analyzed to answer the original research question about sight-singing accuracy. During the research process, decisions were made to increase the amount of responses to the survey. Reminder emails were sent to OkMEA and to smaller groups of teachers involved in this organization to maximize responses. Data collection time was extended for this purpose too. Despite this, I still ended up with relatively small sample sizes that could have potentially influenced the outcome of the statistical analysis by inaccurately representing the population. Nonetheless, enough data was collected to perform a statistical analysis (Welch's independent *t*-test) and a qualitative analysis over confounding variables.

Statistical Analysis

I chose to use Welch's *t*-test to determine if the difference between my two data groups (same vs. different curricula) was statistically significant. Several studies used an independent *t*-test to analyze their data's significance, and Welch's *t*-test is an independent *t*-test (Amkraut, 2004; Brittain, 1998). I chose Welch's *t*-test as opposed to the regular Student's *t*-test because Welch's is better for uneven/small sample sizes with both equal and unequal variances, while Student's is better for equal sample sizes and equal variances. Also, researchers Delacre, Lakens, and Leys state: "Since Welch's *t*-test has practically the same power as Student's *t*-test…seriously consider using Welch's *t*-test by default." (2022). In order to determine variance, I used Levene's Test because it is one of several available methods for determining variance (Delacre, Lakens, & Leys, 2022). I used Social Science Statistics Levene's Test calculator, and my variance was considered equal.

Levene's Test Results

W = **2.6120**
df = 1, 23
p-value ≈ **0.119692**

× Result: Not Statistically Significant

The variances are NOT significantly different across groups (p = 0.120).

At the 0.05 significance level, we fail to reject the null hypothesis. The variances can be considered equal across groups.

I used Graph Pad's Welch's *t*-test calculator, and the calculated P-value had to be under 0.05 to be considered statistically significant–the calculated P-value for this experiment was 0.1030 (not statistically significant).

Group	Group One	Group Two
Mean	1.30	1.87
SD	0.67	0.99
SEM	0.21	0.26
N	10	15

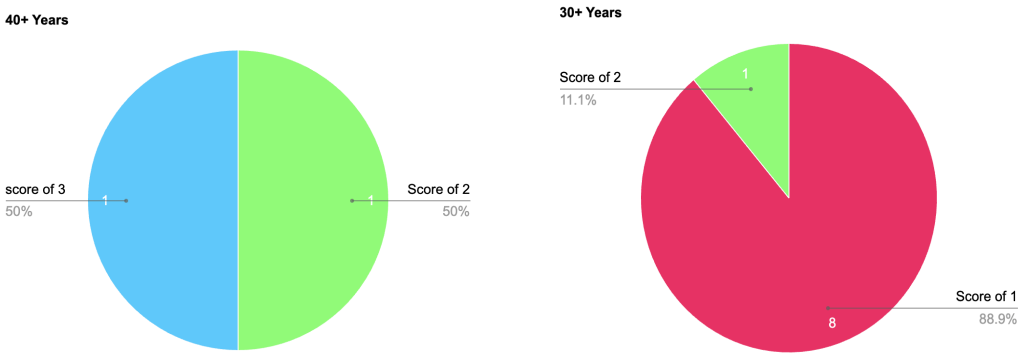
P value and statistical significance:
The two-tailed P value equals 0.1030
By conventional criteria, this difference is considered to be not statistically significant.

The difference between the results was not statistically significant, so this suggests that changing/keeping sight-reading curriculum through MS and HS cannot be considered a potential factor that influences sight-singing accuracy at this point. The averages of the two score groups were different (same curriculum: average score of 1.87; different curriculum: average score of 1.30), but the statistics do not support a significant difference. There are numerous reasons why this outcome may have occurred, and they are addressed in the limitations section. The original hypothesis that schools who used the same curriculum through MS and HS would earn better scores was rejected since the difference between the groups cannot be considered significant. Although it cannot be ruled out, the results of this study do not support HS/MS curriculum consistency as a factor that significantly influences sight-singing proficiency.

Qualitative Analysis

Because there were so many factors that could influence the data besides the factor I was trying to measure, I also examined the confounding variables I gathered to see if there were any trends in the data. Only two choirs did not have all grades (missing freshmen), and this is too small an amount to determine if that had any real impact on the score as opposed to the other choirs. Both of these choirs received ones. Only two choirs were treble (girls only) and they received a two and three, but this amount is too small to see if treble choirs tend to not earn high scores. Most schools (19/25) had the same choir teacher through MS and HS, and neither group seemed to have scores that suggested a trend. There did appear to be a rough trend relating to the amount of practice time each school has and what score they received. 14 of the schools who reported practicing sight-reading most days all school year earned ones; however, 7 schools who reported practicing the same amount received scores other than one. There is some evidence to support Brittain and Capper's assertion that practicing sight-singing for more time may influence accuracy, though this is not a guaranteed outcome.

When it comes to the influence of teaching experience, there may have been some slight correlations with the score and the number of years, however this trend was oddly inconsistent. Teachers who had over 40 years of experience (total of 2) both received scores other than one (40+ Years Chart). Following the trend that teachers with much experience would receive better scores, teachers who had over 30 years of experience (total of 9) received one 8/9 times (30+ Years Chart).



The other three teacher experience categories (20+, 10+, and less than 10 years) all received very mixed scores with no clear trends. It is interesting that both 40+ teachers received scores other than one, but nearly every 30+ year teacher did receive a one. Though this is a tiny number of 40+ teachers, this was very surprising to find because I believed that teachers with this much experience would receive high scores regardless of other variables because of their sheer knowledge of teaching. Several possible explanations exist to explain these findings, but I am leaning toward one in particular. I believe that one of my initial assumptions (full student effort) may have been unrealistic, but I will address this further in the conclusion. My initial hypothesis about teacher experience in relation to score cannot be considered fully accurate because of the inconsistency of the results.

There were a few slight trends within my limited data that align with some previously researched confounding variables. No concrete conclusions can be drawn, but it is important to note what correlations did appear and how they may be related to the score that schools received.

Qualitative and Quantitative Relationship

The statistics of the data show that there is no significant difference between the two groups, meaning the primary hypothesis is null. This suggests that the factor in question (sight-singing curriculum consistency) is not a factor that contributes to sight-singing accuracy. This could be interpreted simply to mean that this factor does not actually make a difference. It could mean that the teachers who responded to the survey did not accurately represent the overall Oklahoma population, so that if a larger/different population was tested, then maybe the hypothesis would not be null. The null outcome could have been influenced by a confounding variable other than the one being tested for. For instance, a confounding variable that was not collected (ex. intensity of practice) may have been heavily contributed to the score of some schools but not others, making the hypothesis null without explanation as to why. Of the confounding variables that were collected, only two were sufficiently present to really analyze as possible explanations for the null outcome.

When it comes to the years of experience for the teacher, it was found that most 30+ year experienced teachers received high scores, while both 40+ year experienced teachers received poorer scores. Other teacher experience categories did not show any obvious trends. This may have contributed to the hypothesis being null because teachers from all categories responded to the survey and they were all

analyzed in one test. If these categories were isolated in a statistical analysis (ex. only 30+), then this confounding variable would be limited and it would allow for a better environment to look for the actual factor in question. As it stands, all the experience groups were grouped together because of logistics, so varying years of experience could be contributing to why the difference is insignificant. A similar reasoning exists when it comes to the practice frequency factor. There were different categories of practice frequency that were included in the same statistical test without distinction. If these categories had been broken up for statistical analysis (fall practice only, spring practice only, etc.), then this confounding variable could be removed. In reality, all these practice frequency groups were tested together. Noting that ⅔ schools that practied nearly everyday all school year received scores of one, this could imply that isolating one group and testing it may have yielded a significant difference under different circumstances.

Overall, these limited qualitative confounding variables are not able to perfectly explain why the hypothesis was found to be null, but they do serve to shed light on some potential reasons for this outcome.

CONCLUSIONS

Summary and Implications

This study was important because finding evidence for or against another potential factor that influences sight-singing proficiency could impact how choir directors organize their curriculum and teaching style. The original research question was answered: the results of this study suggest that the consistency of sight-singing curriculum through MS and HS cannot be considered a potential influencer of the accuracy of high school choirs based on this research involving scores from the 2024-2025 district choir contest in Oklahoma. Statistically speaking, the difference between the two small sample sizes (same curriculum/different curriculum) was not significant. The null outcome of the quantitative data holds important implications for the sight-reading body of knowledge, especially since it most primarily suggests that MS/HS sight-singing curriculum continuity is not an inhibiting factor towards successful sight-singing accuracy development. Despite this null outcome, there was a difference in average score that showed schools with different curricula earning slightly higher scores on average than schools with the same curriculum (this must be considered with the fact that sample sizes were uneven and responses could have inaccurately represented the population). This could suggest that using different materials to prepare for district contests through MS and HS caused the students to become more comfortable sight-reading with different materials, and therefore more adaptable to sight-reading new things. However, this cannot be considered a valid factor that influences sight-reading accuracy or development until further research is conducted.

In analyzing the confounding variables that were collected, I noticed a few slight correlations that supported previously recorded data. This process also caused me to better realize the weight of the role that student effort plays in a choir, and how I was mistaken for simply assuming that this was fully present in all choirs. By reflecting more on both the qualitative and quantitative findings, some interesting

implications regarding the null state of the hypothesis were found. This is important because, though the outcome of the statistics was insignificant, those reflections hold valuable information for future research and they point to new gaps that are present in the current body of knowledge. Though the results of this study do not support the original hypothesis or the existence of this potential confounding variable, these findings do open a door to looking into other neglected factors that may be affecting sight-singing skill or development. Determining more factors that influence sight-reading in this way will hopefully inform teachers about what methods will most efficiently prepare their vocal students for sight-reading.

Limitations

There were numerous limitations involved in this research process. Narrowing the schools who could participate in the study down to those who are involved in OkMEA and participated in a district contest last year dramatically shrunk the number of schools who could participate. This may have caused the limited group I was testing to misrepresent the overall population of Oklahoma HS choirs. The sample sizes were another limitation: they were quite small groups, and they were slightly uneven in size. Though this sample size was sufficient to perform a proper statistical analysis, the responses could have inaccurately represented the already limited population I was testing. There are many qualitative factors that may have influenced the scores that schools received that were not collected in this study–intensity of practice, teacher education/quality, the usage of hand signs, and more. Though I did not have the time to do this, some researchers in the past collected data about individual student music experience (Demorest & May, 1995). Collecting even basic information about the student's interest in or commitment to sight-reading could have benefitted my research by revealing another confounding variable that certainly affected score. The choir director can only do so much to teach the students–the students have to put in time and effort to gain skill. Seeing how very experienced teachers received scores other than one leads me to believe that student effort must be considered with more emphasis in future research. Teachers who earned higher scores may have been more likely to respond to the survey. The scores that choirs received at contest may have been an inaccurate representation of their sight-reading skill. I also did not require a teacher to write how many students were in their choir because I did not find many sources that tested this as something that could influence accuracy, but I did have one teacher mention that they had a very large student body (they received a one) and another teacher mention that they were a small, rural school (they received a two). Perhaps there is some merit to testing if choir size and/or location has any correlation with the sight-reading proficiency of a HS choir.

Future Directions

Updated research could be performed to determine whether MS/HS sight-singing congruency is a variable that affects accuracy, and there are also many similar but original paths to research within this gap. Many previous studies have developed their own method for scoring sight-singing accuracy (Amkraut, 2004; Petty & Henry, 2014). This could have allowed me to get my own rating of the scores, though the future researchers doing this would want someone with music experience to assist them design a scoring process, or they could use one that is already made in a previous study. Scoring the schools would also allow researchers to potentially have access to a larger sample size (it would not be limited by my data's restrictions). Improvements could also be made in future research when it comes to qualitative factors. Although a survey was used for data collection in this study because of time constraints, an interview

format could be a better choice in future research. This format could have allowed teachers–experts on high school sight-reading–to better express some of their opinions regarding the qualitative questions, which would have deepened the analysis of the research by bringing in expert knowledge on the topics being discussed. On the same thought, incorporating more questions that gave the teacher space to share their own perceptions of factors that influence sight-singing accuracy would have been beneficial on the same account of gathering the teacher's first-hand experiences. So, future researchers should consider the benefits of using an interview format for their data collection and incorporating more space for teachers to share their own experiences regarding what is, or is not, beneficial when it comes to sight-reading accuracy development. This would better allow researchers to balance out qualitative and quantitative findings to gain a well-rounded, fully supported new understanding.

Furthermore, it would also be beneficial to collect information about students' effort/experience, or even just asking the teacher how they perceive his/her students' effort level. In retrospect, I believe that this was a confounding variable I should have considered as more significant. Implications from this study support the grounds that certain confounding variables were present and could have possibly influenced the scores that schools' received. Even if future research is performed and no correlation is found between MS/HS curriculum consistency and sight-singing accuracy, then teachers will know that this is something they may not have to worry about when planning for their choirs. This study also helps to open a door into researching more factors that affect both MS and HS because this area has hardly been addressed. 19 of 25 teachers responded that they taught both MS and HS, so it would be very valuable for teachers like this if more research was conducted on factors that influence both since they are so connected for most teachers. Although the results of the statistical analysis do not support the consistency of MS/HS curriculum as a confounding variable, the possibility of this cannot yet be ruled out until further research has been done.

Final Word

Choir teachers play a huge role in preparing their students for future vocal performances and challenges. It is up to them to carefully plan how they will best teach necessary skills to their choirs. Research can help them to see how they can make their strategy more efficient at teaching skills like sight-singing. What it will come down to, however, is the student. If a student truly wants to become proficient at sight-reading, then they will work towards it. Studies with similar objectives to mine may offer the teacher a more efficient way to teach students, but if the student wants to pursue something, they will pursue it. The same is true for the opposite: if they do not want to master it, then they will not work for success. The results of studies that test for factors influencing sight-reading success offer resources for teachers to better plan out their methods. But at the end of the day, the teacher can only do so much. Though there is still more research to be done on what factors inhibit sight-singing success, the results of this research will allow teachers to continue to give their very best to their students.

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APPENDIX A

This is the information and questions that were sent in the survey to the high school teachers:
Information at the top of the survey:
Sight-Singing Connection Survey
Thank you for contributing to my research project by filling out this survey! Please fill out every question in this survey and click submit when you are ready to send it to me. Please note that this survey is for choirs who participated in **district** contests only. If you are unable to answer a question that is not required, that is okay, but it would be beneficial to my research if you filled out each question as specifically as possible. Remember, there is no grading here, so please fill this out as honestly as possible. I need this survey completed and submitted by February 5th if you are willing to participate. If you decide you do not want me to use your anonymous data in my paper, please reach out to me by February 5th so I can remove it.

IMPORTANT NOTE

- If you teach multiple choirs, please fill out this form using information from one choir that fits the following requirements: high school, mixed choir, and participated in the 2024-2025 **district** choir contest for sight-singing scores.

These are questions that were asked on the survey, along with response options for the multiple choice questions:
Please write out your name along with the name of the high school that you teach at. (Note: this information will be kept with your data until February 5th in a google spreadsheet, and after that date your name and school will be deleted, making your data anonymous.)

1. Did your high school choir participate in the 2024-2025 **district** choir contest?

2. Where was the district contest that your choir participated in?

3. Was this a mixed choir that participated?
    a. Yes
    b. No
    c. Other: _____

4. What score did you receive from the judge in the sight-singing room?
    a. 1
    b. 2
    c. 3
    d. 4
    e. 5

5. What sight-singing method did you use in the sight-singing room?
    a. Fixed-do with Solfege syllables

b. Moveable-do with Solfege syllables
c. Fixed-do with numbers
d. Moveable-do with numbers
e. Other: _____

6. What sight-singing resource do you use the most in your choir?
a. I use a commercial resource/purchased curriculum (e.g. Sound Patterns, DeWitt sightreading, S-cubed, etc)
b. I use OSSAA sight-reading pieces from past years
c. I make my own resources
d. I use digital tools
e. Other: _____

7. How many middle schools feed into your high school program? Please list the name(s) of the school(s).

8. Are you aware of what sight-singing method that related middle school uses in their choir class? If you know, what method do they use? If you do not know, please state that in the "other" blank.
a. Fixed-do with Solfege syllables
b. Moveable-do with Solfege syllables
c. Fixed-do with numbers
d. Moveable-do with numbers
e. Other: _____

9. What sight-singing resource does the middle school most connected to your high school use? If you don't know, please state that in the "other" blank.
a. I use a commercial resource/purchased curriculum (e.g. Sound Patterns, DeWitt sightreading, S-cubed, etc)
b. I use OSSAA sight-reading pieces from past years
c. I make my own resources
d. I use digital tools
e. Other: _____

10. How often would you say that your high school choir practices sight-singing in the classroom? Do they do it everyday for the whole school year? Just the spring semester? Please be as specific as possible about **last school year.**

11. How many times a week did you practice with the high school choir being discussed in this survey?

12. Describe the composition of your choir. (Select all that apply)
a. Seniors
b. Juniors
c. Sophomores

d. Freshmen
e. Other: _____

13. How long have you been working as a music director/teacher? (Note: If the choir has more than one teacher, answer for the teacher who works with the students the most on their sight-singing.)

14. Does the middle school have the same choir teacher as the high school (do you teach both choirs)?

Is there any extra information you think I need to know about your choir or anything regarding your participation in this survey? (If you are interested, please mention here that you would like me to share my completed research paper with you.)

APPENDIX B

This was the email sent out to high school teachers in OkMEA:

Hello, teachers! My name is Ella Hall, and I am an AP Research student from Crossings Christian School. I am in the process of writing a research paper about high school sight-singing curricula and factors that affect a choir's success at district sight-singing contests. In short, I am trying to find out if using a congruent (or incongruent) sight-singing curriculum in the middle and high school choir programs could potentially affect the score a high school choir receives at the district sight-singing contest they attend. Participation is optional, but if you are willing to participate in this study, please fill out the attached survey if you: teach a high school choir that participated in one of the **2024-2025 district** choir contests and sang for scores in the sight-singing room. There is consent form information within the survey that I will ask you to read over as well. Details about confidentiality and procedures are listed in the survey/consent form, but please reach out to me with any further questions or concerns you may have at this email address: _____. Thank you for your time.

APPENDIX C

Consent Form Information (all ethical practices in this study were approved by the Institution Review Board):

Please read the below information and click the box if you agree. Thank you!

I am asking you to participate in a research study titled "Sight-Reading Curriculum Consistency in Oklahoma High School Choirs." I will describe this study to you and answer any of your questions. This study is being led by Ella Hall, an AP Research Student from Crossings Christian School. The Faculty Advisor for this study is Helen Denman, Science Department at Crossings Christian School.

What the study is about

The purpose of this research is to see if there is any connection between high schools receiving high scores (1s) at district sight-singing contests while using the same sight-singing curriculum that the middle school most connected to that high school uses. If the outcomes of this study are significant and a correlation can be supported, a new factor that influences group sight-singing success could be acknowledged and potentially addressed by music teachers for the benefit of the students.

What I will ask you to do

I will ask you to complete the short questionnaire above, and read through and agree to this consent form. There will be no follow ups for the survey. If you are unaware of the sight-singing method used by the middle school program most connected to the high school, please just state that you are unaware, and I can contact the middle school teacher if I need to. This is all included in the survey. If you are willing to participate, I need the combined survey/consent form filled out and submitted by February 5th. If you have already submitted the survey, but you decide that you no longer want your data in the survey then I need to be informed by February 5th.

Risks and discomforts

I do not anticipate any risks from participating in this research. You may not be comfortable sharing your district contest sight-singing score, and if this is the case, then you do not need to fill out the survey. Read on for more information about confidentiality of data.

Benefits

Information from this study may benefit other people in the future because it could show a connection that could help teachers find reasoning to update their music programs for the benefit of their students. If there is a significant difference in scores between schools who use the same or different sight-singing curriculum through middle and high school, then teachers may be able to align their music program's sight-singing curriculum for the long-term benefit of their students. A possible indirect benefit of this study would be that teachers could reflect on their music programs and consider if they should be updated or adjusted for the benefit of the students. If a significant connection is found, then it would at least bring to light another factor that influences sight-singing to the factors that are already known.

Privacy/Confidentiality/Data Security

Measures will be taken so that your submitted data will remain confidential. Below are the following specifications for confidentiality, and if you have further questions please contact me at _____.

The survey attached in the email will be returned to me with your name and email address. I will record your data with your name/email address in a google spreadsheet that only I will have access to. Your name, along with the other participants, will remain on this spreadsheet with your submitted information until February 6th, at which time I will delete any information connecting you to this study (your name and your school's name will be deleted and your information will be unconnected to a specific person or school) Your data will be assigned a number (School 1, School 2, ect.).

Your survey responses will be deleted on February 6th.

Your submitted consent form will be kept separate from the data, so you will not be identified by the consent form.

The consent form and the survey are in the same google form, so when you complete one, you will complete the other. As described above, your consent form response will be saved after February 6th, but the rest of your responses will be deleted.

Only me and my research instructor will have access to your information in the brief time it will be listed on the google spreadsheet.

My school choir teacher will not have access to this data at any point.

Please note that the survey attached in the email is presented using Google Forms. Please note that email communication is neither private nor secure. Though I am taking precautions to protect your privacy, you should be aware that information sent through e-mail could be read by a third party. Your confidentiality will be kept to the degree permitted by the technology being used. I cannot guarantee against interception of data sent via the internet by third parties.

Sharing De-identified Data Collected in this Research

De-identified data will be included in the final draft of this research paper, and will be viewed by various people. I will take all precautions that I have mentioned in order to ensure you will not be traced back to your data, but I cannot guarantee anonymity of this data past the precautions I have mentioned.

Taking part is voluntary

Participation in this study is fully voluntary. You can participate if you so choose, and there is no penalty for not participating. If you do choose to participate, please submit the survey with the included consent form by February 5th. If you submit the survey but you decide that you do not want to have your data in the paper, please let me know by February 5th so I can remove it. After that date, I cannot remove your data from the study. You do not have to participate if you are uncomfortable with these conditions. If you would like, I can also share my finished paper with you to read (there will be a part of the survey where you can specify this).

If you have questions

The main researcher conducting this study is Ella Hall, an AP Research student at Crossings Christian School. Please ask any questions you have now. If you have questions later, you may contact me, Ella Hall, at _____.

☐ I give my permission for my response to be used according to the above information

APPENDIX D

This is the information and questions that were sent in the survey to the middle school teachers (only two of the MS teachers had to be contacted to fill in the missing information in a separate MS survey, and this information was put directly into the overall data chart):
Information at the top of the survey:
Thank you for contributing to my research project by filling out this survey! Please fill out every question in this survey and click submit when you are ready to send it to me. I need this survey completed and submitted by February 5th if you are willing to participate. If you decide you do not want me to use your anonymous data in my paper, please reach out to me by February 5th so I can remove it.

These are questions that were asked on the survey, along with response options for the multiple choice questions:

1. What sight-singing method does your middle school choir use? (Note: Answering this question does not mean that your choir had to participate in a district contest for sight-singing. This question just relates to the method you have used in the classroom. If you don't use a sight-singing method in the middle school choir, please mention that.)
    a. Moveable-do with solfege
    b. Moveable-do with numbers
    c. Fixed-do with solfege
    d. Fixed-do with numbers
    e. Other: _____

2. What sight-singing resource do you use the most in your choir?
    a. I use a commercial resource/purchased curriculum (e.g. Sound Patterns, DeWitt sightreading, S-cubed, etc)
    b. I use OSSAA sight-reading pieces from past years
    c. I make my own resources
    d. I use digital tools
    e. Other: _____

APPENDIX E

Middle School Consent Form Information:
I am asking you to participate in a research study titled “Sight-Reading Curriculum Consistency in Oklahoma High School”. I will describe this study to you and answer any of your questions. This study is being led by Ella Hall, an AP Research Student from Crossings Christian School. The Faculty Advisor for this study is Helen Denman, Science Department at Crossings Christian School.

What the study is about

The purpose of this research is to see if there is any connection between high schools receiving high scores (1s) at district sight-singing contests while using the same sight-singing curriculum that the middle school most connected to that high school uses. If the outcomes of this study are significant and a correlation can be supported, a new factor that influences group sight-singing success could be acknowledged and potentially addressed by music teachers for the benefit of the students.

What I will ask you to do

I will ask you to complete the short questionnaire attached in the email, and read through and sign this consent form. There will be no follow ups for the survey. The high school choir director most connected to your middle school choir has given me the name of your school, but your participation is not mandatory.

Risks and discomforts

I do not anticipate any risks from participating in this research. You may not be comfortable sharing your choir's information, and if this is the case, then you do not need to fill out the survey. Read on for more information about confidentiality of data.

Benefits

Information from this study may benefit others in the future because it could show a connection that could help teachers find reasoning to update their music programs for the benefit of their students. If there is a significant difference in scores between schools who use the same or different sight-singing curriculums through middle and high school, then teachers may be able to align their music program's sight-singing curriculum for the long-term benefit of their students. A possible indirect benefit of this study would be that teachers could reflect on their music programs and consider if they should be updated or adjusted for the benefit of the students. If a significant connection is found, then it would at least bring to light another factor that influences sight-singing to the factors that are already known.

Privacy/Confidentiality/Data Security

Measures will be taken so that your submitted data will remain confidential. Below are the following specifications for confidentiality, and if you have further questions please contact me at _____.

The survey attached in the email will be returned to me with your name and email address. I will record your data with your name/email address in a google spreadsheet that only I will have access to. Your name, along with the other participants, will remain on this spreadsheet with your submitted information until February 6th, at which time I will delete any information connecting you to this study (your name and your school's name will be deleted and your information will be unconnected with a specific person or school) Your data will be assigned a number (School 1, School 2, ect.).

Your survey responses will be deleted on February 6th, but your data will be kept in a google sheet that will remain anonymous from this point on.

Your submitted consent form will be kept separate from the data and will not be included in the paper, so you will not be identified by the consent form.

Only me and my research instructor will have access to your information in the brief time it will be listed on the google spreadsheet.

My school choir teacher will not have access to this data at any point.

Please note that the survey(s) attached in the email is presented using Google Forms. Also, please note that email communication is neither private nor secure. Though I am taking precautions to protect your privacy, you should be aware that information sent through e-mail could be read by a third party. Your confidentiality will be kept to the degree permitted by the technology being used. I cannot guarantee against interception of data sent via the internet by third parties.

Sharing De-identified Data Collected in this Research

De-identified data will be included in the final draft of this research paper, and will be viewed by various people. I will take all precautions that I have mentioned in order to ensure you will not be traced back to your data, but I cannot guarantee anonymity of this data past the precautions I have mentioned.

Taking part is voluntary

Participation in this study is fully voluntary. You can participate if you so choose, and there is no penalty for not participating. The high school choir teacher most connected to your middle school choir did give me your information, but that does not mean that your participation is required. You will receive no penalty if you choose not to fill out the survey, and the high school choir teacher will not be notified whether or not you fill out the form. If you do choose to participate, please submit the survey and send me

the consent form by February 5th. If you submit the survey but you decide that you do not want to have your data in the paper, please let me know by February 5th so I can remove it. After that date, I cannot remove your data from the study. You do not have to participate if you are uncomfortable with these conditions. If you would like, I can also share my finished paper with you to read (there will be a part of the survey where you can specify this).

If you have questions

The main researcher conducting this study is Ella Hall, an AP Research student at Crossings Christian School. Please ask any questions you have now. If you have questions later, you may contact me, Ella Hall, at _____.

☐ I give my permission for my response to be used according to the above information

APPENDIX F

This was the email sent to two individual middle school teachers because their high school teachers did not know their MS Sight-reading curriculum.
Dear [specific teacher],

My name is Ella Hall, and I am an AP Research student from Crossings Christian School. I am in the process of conducting research on middle school/high school sight-singing curriculum alignment, and the high school choir teacher most connected to your middle school choir gave me your contact information. Your high school choir teacher filled out the necessary survey to participate in my study, and they gave me your contact information to obtain the sight-singing curriculum that your middle school uses. I have included a very short survey and consent form in this email, and if you are willing to participate, please fill out the attached forms. If you do not want to participate, then you do not have to. The high school teacher who gave me your information will not be notified whether or not you participate; filling out the survey is fully voluntary. Thank you for your time.

APPENDIX G

This is a data table that has teacher responses for mixed/treble choir, sight-reading score, HS sight-singing method, MS sight-singing method, HS curriculum resources, and MS curriculum resource.

Mixed	Score	HS Method	MS Method	HS Resource	MS Resource
Yes	2	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	Purchased
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA and Purchased

Yes	3	Moveable-do w/ Numbers	Moveable-do w/ Numbers	OSSAA Pieces	OSSAA Pieces
Yes	2	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA Pieces
No	2	Moveable-do w/ Solfege	Moveable-do w/ Solfege	Combination	Combination
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	Purchased
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA and Purchased	OSSAA and Purchased
Yes	3	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA Pieces
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA Pieces
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA Pieces
Yes	4	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA Pieces
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	Personal-Made	Personal-Made
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA and Purchased	OSSAA and Purchased
No	3	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA and Purchased	Purchased
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA and Purchased	OSSAA and Purchased
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA and Purchased	Purchased

Yes	3	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA Pieces
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA Pieces
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	Purchased
Yes	2	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA and Purchased	Purchased and OSSAA
Yes	1	Fixed-do w/ Solfege	Fixed-do w/ Solfege	Digital	Purchased
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	Purchased, OSSAA, and Personal-Made	Purchased and Personal-Made
Yes	2	Moveable-do w/ Solfege	Moveable-do w/ Solfege	OSSAA Pieces	OSSAA Pieces
Yes	1	Moveable-do w/ Solfege	Moveable-do w/ Solfege	Combination	OSSAA Pieces

This is a data table that has teacher responses for amount of choir practice time, number of class meetings per week, the grade composition of the choir, and the years of teacher experience. These responses are in the same order as the above table.

Practice Time	Class Meeting (times per week)	Grade Mix (9-12)	Teacher Experience
Dedicated sight-reading practice everyday until spring contest; afterwards sight-reading skills are informally practiced in rehearsal	4	All	6
Some in fall, every day but Friday in the Spring	5	All	37
most everyday	5	All	41

4 days a week, both semesters	5	All	41
Every rehearsal	2	All	24
3 times per week in 1Q, 1 times per week in 2Q, 3-4 times per week 3Q	5	All	27
Once or twice a week in the fall, every day if possible in the spring	4	All	3
Every day from the first full week of school until after state contest	5	All	17
Daily, entire school year	4	All	26
Mostly every day. I would say 90% of the school year	5	All	32
at least 3 times a week which then turns into 5 days a week after fall break	4	All	30
Last half of fall semester into spring semester	5	All	3
2-4 times a week	5	All	32
We sight read 4 of 5 days (not wednesday), did this the whole year until contest time.	5	All	8
fairly often in spring semester	3-4	All	12
Daily, all year	4-5	No Fresh-men	29
3 days a week in the fall and every other day in the spring	5	All	30
Try to start in Oct., 3 times per week. Really start to push in January everyday	5	All	22
most days in fall semester and OSSAA each week in fall semester most days, in Spring an OSSAA everyday	3-4	All	13
Mostly we work on sight-reading most days after Christmas break	5	All	4
Everyday	5	All	37

4 times a week	5	All	34
everyday	5	No Fresh-men	34
Occasionally in the spring semester, some in the fall	2-3	All	6
Every day except during tech weeks for shows that involve the choir	2-3	All	33