

ACCOMMODATING VOICE CHANGE

Accommodating Adolescent Voice Change in Middle School Choir

Christine Kirk

The University of the Arts

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Approved as to style and comment by:

Dr. Jenny L. Neff

Dr. Jenny L. Neff, Division Chair of Music Education

Micah Jones

Micah Jones, Dean of the School of Music

Erin Elman

Erin Elman, Dean of Professional Studies

Abstract

The purpose of this empirical study is to investigate how teachers manage the adolescent changing voice in middle school choir. In this study, middle school choir teachers will be surveyed about how their class arrangements and repertoire choices address their students' changing voices. The data will be compiled and analyzed to create a list of strategies for managing middle school choir in regards to voicing. Both the male and female voices begin changing during adolescence. Schools across the United States have different class schedules and arrangements to help manage these changes. Teachers also use different repertoire with middle school students to support and develop their voices. The goal of the study is to discover the best class arrangements, repertoire choices in terms of voicing, and teaching strategies for middle school students. This study will survey middle school choir teachers about how their classes are organized and how they accommodate changing voices. The study will also produce a comprehensive list of strategies for addressing middle school students' changing voices.

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Chapter 1: Introduction

Adolescent voice change has been a popular topic in the world of choral music education for many years. There are numerous studies on voice changes in both male and female students. The purpose of this empirical study is to investigate how teachers manage the adolescent changing voice in middle school choir. In this study, middle school choir teachers will be surveyed about how their class arrangements and repertoire choices address their students' changing voices. Participants will share how their classes are organized, the types of repertoire they select, and how they utilize their rehearsals to teach this repertoire. The data will be compiled and analyzed to create a list of strategies for managing middle school choir in regards to voicing. I will also examine the frequency with which the participants mention various teaching strategies. I will compare findings between teachers who predominantly separate their classes by voice part/gender and teachers who have mixed voices in their classes.

All students undergo a great deal of physical and emotional changes during their middle school years. Both the male and female voices begin changing during adolescence. Schools across the United States have different class schedules and arrangements to help manage these changes. Teachers also use different repertoire with middle school students to support and develop their voices. I want to discover the best class arrangements, repertoire choices in terms of voicing, and teaching strategies for middle school students. This empirical study will survey middle school choir teachers about how their classes are organized and how they accommodate changing voices. The study will also produce a comprehensive list of strategies for addressing middle school students' changing voices.

I predict that most teachers will have classes organized by grade level only and that they will express a desire to separate their classes by voice part/gender. This seems like the most

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accessible way to work with students as their voices change. I predict that these teachers will teach mostly three-part mixed repertoire, while teachers whose classes are organized by voice part/gender will teach more SA and TB repertoire. I predict that the most common strategies teachers will provide for accommodating the changing voice will be flexibility with students on their voice parts as well as education about their changing voices and creating a safe and supportive environment as students begin to experience the voice change.

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Chapter 2: History of the Changing Voice in Middle School Choir

The adolescent changing voice has been a topic of great interest in the world of music education for quite some time. In 1977, John Cooksey published his article “The Development of a Contemporary, Eclectic Theory for the Training and Cultivation of the Junior High School Male Changing Voice” in three parts. In Part I, Cooksey examined existing theories of male adolescent vocal development. Discussion began in the early 1900s when junior high schools first came into existence and teachers debated the best form of voice training for those male students. In the 1950s and 1960s there were three major theories about male voice change: the cambiata plan, the adolescent bass, and the alto-tenor approach. Cooksey felt it was time to re-evaluate these theories to create a modern approach to the male changing voice (1977a, pp. 5-6). In Part II he discussed the voice change in relation to the accompanying physiological changes. He describes the increase in breathing capacity, the growth of the neck and subsequent dropping of the larynx, and the growth of the larynx. The male voice gradually changes from soprano to alto to several stages of cambiata or tenor and eventually to baritone (Cooksey, 1977b, pp.6-8). In Part III he emphasized the importance of first classifying where a student is in the voice change cycle (based on the previous article.) Then the teacher must use the principles of good tone production and teach vocal exercises that promote excellent tone quality, resonance, pitch agility, and range extension regardless of the stage of voice change. The teacher must also choose repertoire that fits the needs of the specific singers (Cooksey, 1977c, p. 5). This series of articles led to many other researchers expanding on Cooksey’s work and continuing to explore male voice change. Cooksey’s research is still highly regarded today and many teachers still make charts in their classrooms based on his voice range classifications.

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In 1985, Lynn Gackle published her article “The Young Adolescent Female Voice (Ages 11-15): Classification, Placement, and Development of Tone. Gackle (1985) wrote, “because there are no outward physiological transformations such as the appearance of the thyroid cartilage (known as the Adam’s apple) or the dramatic, audible drop in register of the voice, many assume that female voice goes through no change” (p.15). She described and gave examples for female voice classification and techniques in a similar format to Cooksey. Gackle also emphasized the need for more research on the subject as there were numerous studies on the male voice at this time and very few on the female. Gackle’s later article “The Adolescent Female Voice: Characteristics of Change and Stages of Development” in 1991 marked her as an expert in the field and inspired others to continue expanding upon this research.

Bridget Sweet has examined the many *Choral Journal* articles on both the male and female changing voices and determined that educators and researchers should continue to expand this topic. More research “will only further substantiate the work that we do as choral music educators to students, parents, colleagues, and school administrators...and outwardly demonstrate our intentions to address the vocal needs of all of our adolescent choristers” (Sweet, 2016b, p. 63). Sweet made significant contributions to the subject in multiple studies. Her study of female singers in grades 6-12 revealed that the participants experience “frustration, embarrassment, and pride...the same descriptive words used by male singers” (Sweet, 2015, p. 83). In another study Sweet interviewed collegiate female singers and asked them about their adolescent choir experiences. Many felt that “singing experiences in choir centered on what was needed for the larger choir and not on working through individual singers’ difficulties” and “credited collegiate voice teachers with helping them to ‘find their voice’” (Sweet, 2018, pp. 142-143). These quotations demonstrate that the participants felt neglected in their middle

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school choir experiences and did not truly become comfortable as vocalists until taking college voice lessons.

Sweet took the research from Cooksey, Gackle, and others and examined it through an emotional lens. She found that students absolutely must feel emotionally supported in their singing until the physiological aspects of their voice are developed. Understanding their voice change will empower them when they are uncomfortable and make them more willing to work through challenges. Assigning students to voice parts will have a great impact on their perceptions of their own voices, making it important to move singers to different lines frequently and have mixed groups sing each part (Sweet, 2016c, pp. 9-13). Many researchers and teachers agree with this concept, stating that teachers should “choose music where the voices are labeled part I, II, and III rather than soprano or alto. This allows teachers to easily mix the sexes when assigning voice parts” (Abrahams, 2012, p. 36). Sweet also advocates for a formal presentation about the physiological voice change. It is important for students to receive this presentation in each year of middle school as they will be in a different stage of their voice change each time. She suggests that teachers can support students with regular voice testing, rotating parts, and rewriting parts when needed (Sweet, 2016a, p. 8).

If middle school students are dealing with massive physical and emotional changes during their time in choir, what can teachers do to accommodate them? One school of thought is to separate the students by gender when possible. There is a great deal of research about how male and female students learn differently and that the key to success is not “fixing” students, but rather teaching teachers the differences in learning styles. For example, on average females are more sensitive to sounds than males. Thus, some male students have trouble concentrating when listening to a soft-spoken teacher and conversely some female students feel that louder

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teachers are “yelling” at them (Sax, 2017, pp. 5-20). Even outside of music education there are advocates for single-gender classes based on research that shows males and females often learn in different ways (Dame, 2019, p.3). Many feel that this is most important for male students since their voices “will likely have begun to change, and progress can be slow, and at times, embarrassing. Without the girls in the choir, the boys may be less inhibited as they learn to use and control their emerging voices” (Brinson & Demorest, 2014, p. 39). In addition to this obvious social benefit, teachers can spend more time working with students in comfortable ranges and can more easily select repertoire based on the voicings within an ensemble. Many teachers feel that simply separating their choirs by gender will guarantee increased participation in choir, particularly from male students (Cox, 2002, p. 68). Teachers also tend to have fewer behavior problems when they separate their male and female students (Freer, 2007, p. 31).

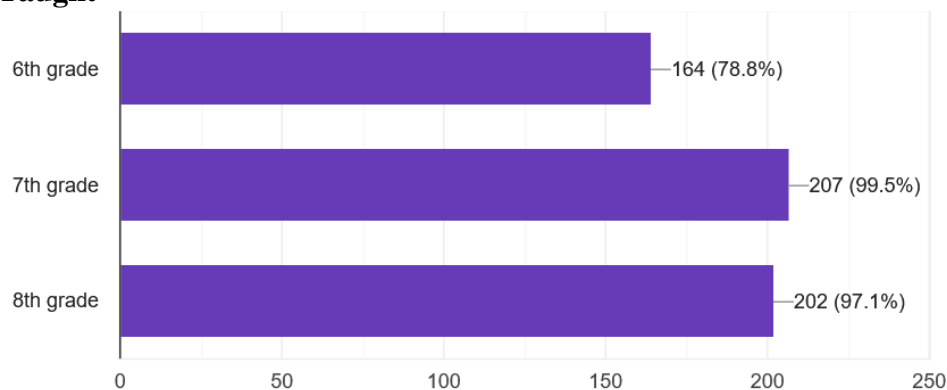
Student perspective can also be considered in this class separation. Williamson found in her investigation of 40 male middle school students that the students responded unfavorably towards splitting their classes by gender. However, she also found that the students perceived a positive classroom environment when separated by gender. She concluded that it was possible students would have felt this way in a mixed ensemble or that the students did not realize the gender separation contributed to this positive environment. It is also possible that students perceived gender separated choirs as being lower tier or beginner choirs. Ultimately, Williamson (2018) recommends that teachers using gender choirs must “become cognizant of the complexities and better understand how adolescents experience gender choirs” in order to “provide students with a strong means of support for learning to sing and learning to love to sing” (p. 55).

Chapter 3: Survey Results

In order to gather data for my research, I created a survey using Google Forms to distribute to middle school choir teachers. I emailed the survey to middle school choir teachers in the state of Delaware and used the Facebook groups “Middle School Choir Directors” and “I Teach Middle School Chorus!” to distribute the survey to a broader range of teachers in other parts of the country. I received a total of 213 responses. The first question on the survey was, “Do you currently teach 6th, 7th, and/or 8th grade choir?” Five participants responded “No” and were directed to the end of the survey. As a result, I had 208 relevant participants.

The next section of the survey was Class Organization. Participants selected the grade levels that they currently teach. Participants were able to fill out the survey if they taught other grades not included in the survey, but were instructed to give responses based on 6th, 7th, and 8th grade. The results showed that most of the participants teach 7th grade, followed by 8th grade, and finally the fewest teaching 6th grade.

Grade Levels Taught



The next question in this section asked how teachers determine what voice parts students sing. The options were based on vocal range, based on gender, or other. 76.4% of the participants answered that they determined voice part based on vocal range. 6.7% responded that

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they determined voice part based on gender. The remaining 16.9% of participants selected “Other” and gave a variety of responses. This first group of “Other” responses were essentially still determining voice part based on vocal range:

- A mix of vocal range, timbre, and comfort singing in the different registers of the voice
- I choose parts based on vocal strength in 6th grade and partially in 7th grade. I start with gender in 8th grade and then move them around based on vocal range in 7th and 8th grade.
- I consider what their range is but also how comfortable they are in a certain range.
- I determine it based on range and how well they can hold harmonies. If they can't hold their part, I have them sing melody. Often I do this if they have pitch issues as well.
- I determine voice part on where the strength of their voice lies, which indicates to me where they feel comfortable singing.
- Mostly by range, but watching for high-voiced boys that can't 'get over it' and make some exceptions.
- Range is part of it. I also teach them a 2 part 8 beat exercise in s-fa. Then I have hear (sic) them in groups of 4 2 to a part. I use that to value my strongest singers among sections.
- The kids are separated by gender in class. But within the class their voice parts are determined by vocal range so I wanted to select both.
- Voice parts based on vocal range and section blending with other voices

This next group of responses were essentially still determining voice part based on gender:

- Both. I go based on gender unless the students are more comfortable in a different range.
- Mostly by gender however there are some boys that I will put as an alto if even the tenor range feels too low for them

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- Start with gender, but adjust as needed

The next group of responses determined voice part based on both range and gender:

- Gender, vocal range and where they are most needed
- I determine voice part upon vocal range and gender.
- I determine voice parts using a combination of age, gender, vocal range and student choice.
- I take both into account.

Five of the responses basically stated that they have females alternate between soprano and alto but determine male voice parts based on vocal range:

- 6, 7, 8 - Girls are randomly divided into 2 groups. They take turns singing alto/soprano on each concert song. Boys in 6th are also part of those two groups. Boys in grades 7 and 8 are put in tenor or bass based on vocal range.
- All female students trade singing alto and soprano each concert except in special cases of range. All males are assigned voice parts based on range.
- Based on vocal range but for my female students, I like to have them switch parts throughout the year to get used to singing melody and harmony. Most middle school music does not use extreme ranges and middle school singers should not get pigeonholed into one voice part.
- Girls switch parts. Boys based on range.
- I rotate voice parts as much as possible in trebles. With the TB choir, I determine voice part based on vocal range

Seven of the responses said that they have all students rotate voice parts:

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- I determine parts based on range and try to rotate all students through more than one part at least once.
- I divide the class and switch parts in each song.
- I only do 2 part music, and everyone gets an opportunity to sing both parts
- I split the choir into 2 groups without distinguishing voice parts. Each group has strong and weak singers.
- There are no voice parts per se in the middle school. Children should learn how to sing both soprano and alto parts. As boys and girls voices change, I evaluate each child to see where to our changes voices and to accommodate chafing female voice (sic)
- Vocal range but I also make them sing the other part at least once throughout the year if physically possible.
- Vocal range in 5,6,7th grades can still be explored by doing 2-3 part rep. No one is assigned a soprano alto tenor bass part. Instead it's part 1 or 2 concord it's similar range. It a students voice necessitates they can drop an octave (sic)

Seven of the participants said that they let the students choose their voice part (many provide guidance and suggestions before having students choose.)

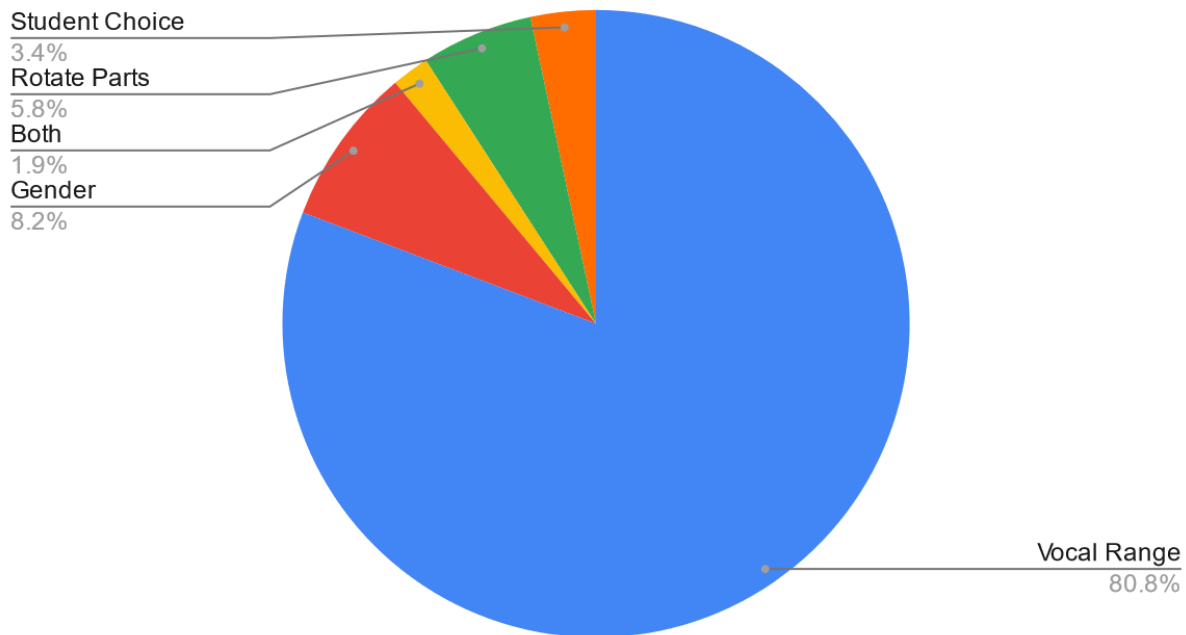
- Both and then some. The boys can choose between the 3 voicings, the girls can choose between 2 but I shuffle to balance out and switch some up to challenge those based on range or part singing.
- Combination. I even let students choose and adjust when needed.
- I let them try both parts and they get to decide
- I make suggestions based on their range and let students choose. They usually take my suggestion.

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- Range and comfort- I let them tell me for the most part
- They choose first and then I test
- They do a range check and tell me what they're most comfortable with. I guide them.

This created the following overall general responses:

How to Determine Voice Parts



My next question was about how the choirs are organized. I created a long list of choices based on designs I am already familiar with and accounting for many possible options. I also gave an option for other in case there was something outside of my initial list.

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How Are Your Classes Organized?		
Organization Method	Number of Participants	Percentage of Participants
Classes are divided by grade level only	84	40.4
Classes are mixed by both grade level and gender/voice part.	36	17.3
Classes are divided by both grade level and gender/voice part.	26	12.5
6 th grade is a mixed class, 7 th grade is split by gender/voice part, and 8 th grade is split by gender/voice part.	16	7.7
Classes are divided by gender/voice part only.	10	4.8
Choir is not a scheduled class and it is mixed by both grade level and gender/voice part.	5	2.4
6 th grade is a mixed class, 7 th grade is a mixed class, and 8 th grade is split by gender/voice part.	2	1
6 th grade is split by gender/voice part, 7 th grade is split by gender/voice part, and 8 th grade is a mixed class.	2	1
Choir is not a scheduled class, but it is still divided by both grade level and gender/voice part.	1	0.5
6 th grade is a mixed class, 7 th grade is split by gender/voice part, and 8 th grade is a mixed class.	1	0.5

I read through the “Other” responses and then organized those into categories.

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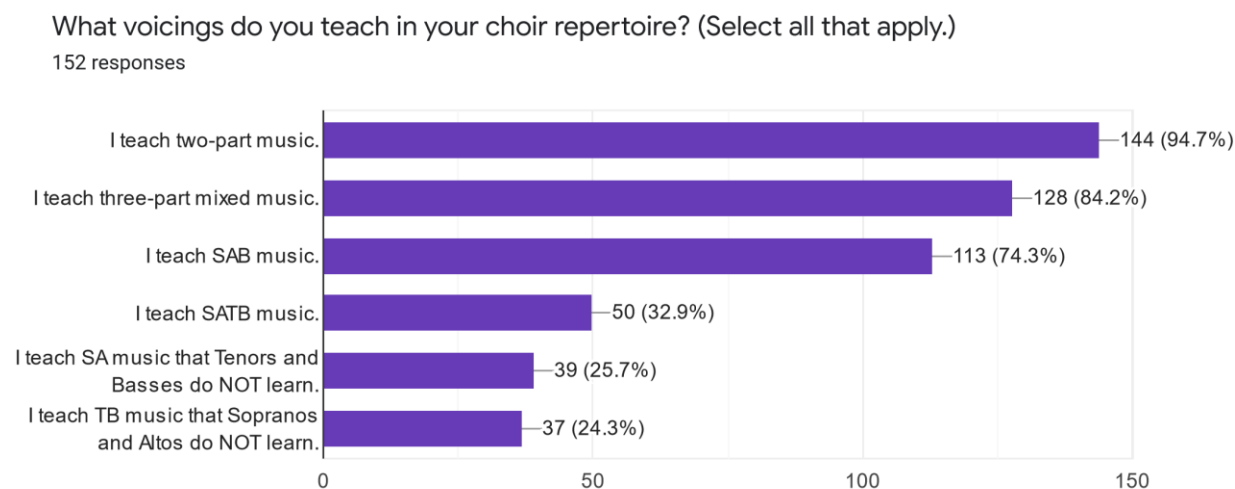
How Are Your Classes Organized? (Other Responses)		
Organization Method	Number of Participants	Percentage of Participants
6 th grade is a mixed class and 7 th /8 th grade are a combined mixed class.	11	5.3
6 th grade is split by gender/voice part and 7 th /8 th grade are combined/split by gender/voice part.	2	1
6 th grade is split by gender/voice part and 7 th /8 th grade are combined/split by gender/voice part AND ability.	2	1
All students in one group	2	1
Treble choirs split by grade, but TB choirs have all grades combined	2	1
6 th grade is a mixed class and 7 th /8 th grade are combined/mixed AND split by ability.	2	0.5
Beginner choirs are split by gender/voice part and advanced choirs are mixed.	1	0.5
6 th grade is a mixed class, 7 th grade is mixed class, and 8 th grade has both mixed classes AND gender/voice part classes.	1	0.5
6 th grade is split by gender/voice part, 7 th /8 th grade TB are combined, 7 th /8 th grade treble are combined AND split by ability.	1	0.5
Classes are divided by gender/voice part and years of experience.	1	0.5

I noted that 125 of the 163 participants who teach 6th grade and at least one other grade have their 6th grade rehearse separately from their other students. Answers for the organization question sent participants to different sections of the survey. If participants responded that their

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classes have a mix of genders/voice parts, they were directed to the section called “Accommodating Changing Voices.” Participants who responded that their classes do not have a mix of genders/voice parts were directed to the section called “Changing Voices in Split Gender/Voice Part Classes.” Participants only completed the section that they were directed to and not the other section.

The first question in the section “Accommodating Changing Voices” was about voicings that the participants teach in their choirs.



The next question was, “If you teach SA music that Tenors and Basses do NOT learn and/or TB music that Sopranos and Altos do NOT learn, how do you structure this during rehearsal?” 104 of the 152 participants for this section of the survey responded that they do not teach separate SA and TB music. Of the remaining 48, they gave the following responses:

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How Do You Structure Time for Split Voice Part Repertoire?		
Strategy	Number of Participants	Percentage of Participants
SA students work on music with teacher while TB students do independent work/TB students work on music with teacher while SA students do independent work.	16	10.1
SA students and TB students both work on music simultaneously by using multiple locations and teachers working with both groups.	8	5.3
Both of the above options	1	.01
SA students work with accompanist while TB students work with teacher.	1	.01
Teachers who have separate voice part/gender choirs, but were directed to this part of the survey by giving an unclear answer for the class organization question.	22	14.5

The next question in this section asked what else teachers do to accommodate their students' changing voices. I created an open-ended response in order to give participants the freedom to elaborate and perhaps mention new strategies and techniques that they may have created on their own in their classrooms. It also allowed me to see the frequency with which teachers mentioned specific strategies without being prompted. If I had provided a list, it may have reminded teachers of existing strategies that they would theoretically like to use or might use rarely. By making the question open-ended I was able to see what strategies readily came to mind (indicating true and regular use from teachers.) Since the participants were not limited in

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their responses, there are more than 152 answers provided for this section. I have noted both the strategy as well as the total number of times it was mentioned in the responses.

What Strategies Do You Use to Accommodate Changing Voices?	
Strategy	Number of Times Mentioned in Responses
Rewrite parts and/or allow students to sing in different octaves	49
Frequent range checks	26
Allow students to change voice parts when needed	22
Specific warm-ups/vocal exercises	16
Lessons/sectionals	13
Repertoire choice	13
Create a safe environment/normalize voice change/remove stigma	10
Education about voice change	9
Switch voice parts regularly	7
Seat students next to strong singers	5
All students learn all vocal lines	4
Display a voice part chart	4
Seat tenors and/or baritones together	3
Avoid gendered terminology	2
Bring in mature changed voices to sing with students	2
Encourage students to sing	1
Teacher composes/arranges repertoire	1

I also noted that 15 of the participants responded in a way that implied they understood the term “changing voice” to only refer to male students.

The final question in this section of the survey asked if the teachers would prefer their classes to be organized differently, and if so, how they would choose to organize them. 25 responded no, but of those 25, six were participants who had been directed to the wrong part of the survey due to an unclear answer about class organization, so only 19 of the participants that should have been taking this part of the survey answered no. The others gave the following responses:

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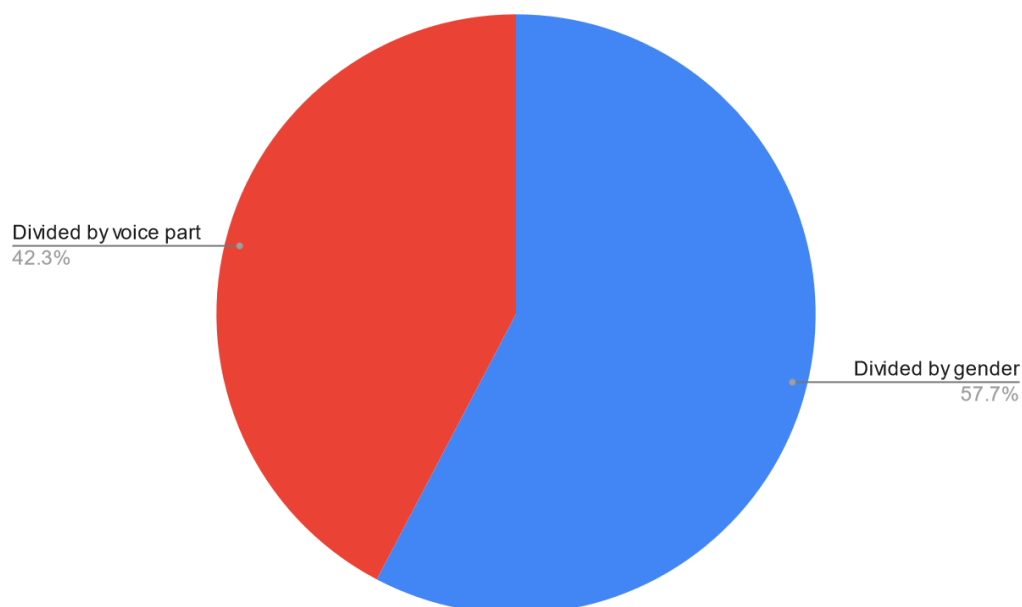
How Would You Prefer Your Classes to Be Organized?		
Organization Method	Number of Participants	Percentage of Participants
Gender/voice part split	40	27.4
No change	19	13
Ability split	9	6.2
Grade level split	8	5.5
6 th grade mixed, 7 th /8 th grade combined, but gender/voice part split	5	3.4
8 th grade only gender/voice part split	5	3.4
6 th grade mixed, 7 th grade gender/voice part split, 8 th grade gender/voice part split	4	2.7
6 th grade mixed, 7 th /8 th grade combined with mixed auditioned class and two gender/voice part split classes	4	2.7
Answers about other issues such as block scheduling	4	2.7
Mixed grades	4	
7 th grade only gender/voice part split	3	2.7
Mixed grades, but grouped by both ability and gender/voice part	3	2.1
Not sure	3	2.1

Of the 146 participants, 64 stated they would prefer at least one form of splitting their classes by gender/voice part. This totals 43.8% of the participants in this section of the survey.

The other 56 participants were directed to the part of the survey called “Changing Voices in Split Gender/Voice Part Classes.” Four of these participants were misdirected here by giving unclear answers to the question about class organization, so I removed their answers from these results. The first question asked how teachers organize their students (meaning whether their class divisions are based on gender or voice part/range.)

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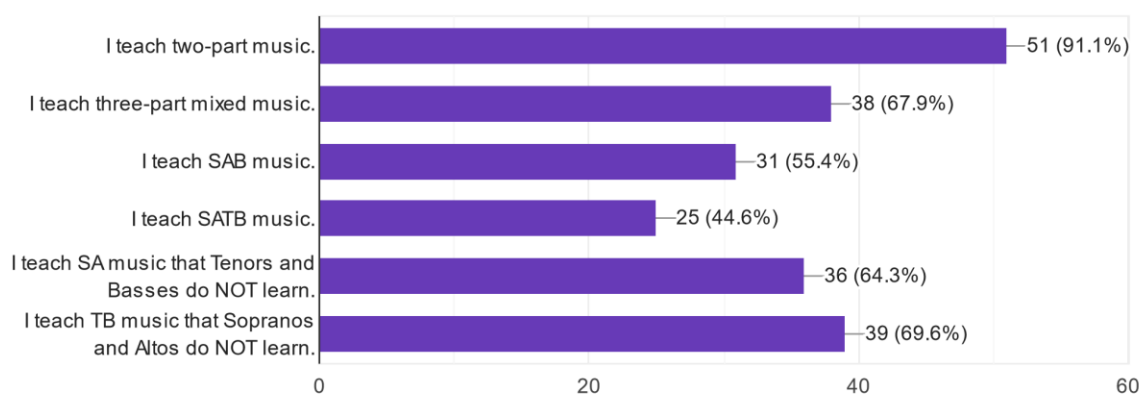
How Do You Organize Your Students?



The next question in this survey asked what voicings the participants teach in their repertoire.

What voicings do you teach in your choir repertoire? (Select all that apply.)

56 responses



The final question in this section asked how teachers rehearse three-part mixed, SAB, and/or SATB repertoire in their classes.

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How Do You Structure Time for Mixed Voice Part Repertoire?		
Strategy	Number of Participants	Percentage of Participants
Students rehearse with only their parts and have at least one special rehearsal before performances with full choir.	19	36.5
I do not teach three-part mixed, SAB, and/or SATB music during choir classes that are divided by gender/voice part.	14	26.9
Students rehearse with tracks playing the missing parts and have at least one special rehearsal before performances with full choir.	14	26.9
Students rehearse with only their parts and are unable to rehearse as a full choir before a performance.	3	5.8
Students rehearse with tracks playing the missing parts and are unable to rehearse as a full choir before a performance.	2	3.8

Finally, all participants were directed to an Additional Comments section. The first question in this section specifically asked if the participants have had any conflicts with scheduling their choirs. If they answered yes, they specified what the conflicts were. 103 of the participants answered no. The rest gave the following responses. Participants were able to cite more than one conflict.

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What Conflicts Do You Have with Organizing Your Choirs?		
Conflict	Number of Participants	Percentage of Participants
Conflicts with other electives	34	16.3
Conflicts with advanced classes	13	6.1
Scheduling gender/voice part split classes	13	6.1
General scheduling conflicts	8	3.8
Conflicts with other after-school activities	5	2.4
Conflicts with special education and remedial classes	5	2.4
Grade levels cannot be combined	5	2.4
Choir does not meet frequently enough	4	1.9
Students who did not choose choir are placed in it	4	1.9
All grade levels are combined	3	1.4
Conflicts with Physical Education	3	1.4
Scheduling conflicts due to multiple choir teachers	3	1.4
Teacher has no input	3	1.4
Difficulties scheduling combined rehearsals before performances	2	1
Number of male students in classes is not balanced	2	1
Teacher teaches at multiple schools	2	1
Choir is not a graded class	1	.05
No designated choir room	1	.05

The last question asked for any additional strategies and comments. Participants were not required to answer. I noted the frequency of answers.

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Additional Strategies	
Strategy	Number of Times Mentioned in Responses
Careful repertoire selection	14
Create a safe environment	13
Be positive/encouraging	11
Educate students about voice change	11
Frequent check-ins with students	11
Separating by gender/voice part	11
Use of specific vocal exercises for changing voices	10
Promote healthy singing	7
Allow students to drop the octave	5
Avoid gendered terminology/voice part labels	5
Allow students to switch parts	3
Build relationships	3
Rewrite parts as needed	3
Be flexible with transgender students' preferences	2
Bring in older singers to rehearse with middle school students	2
Bring in teacher of opposite gender to work with students	2
Seat male students together regardless of voice part	2
Small group lessons/sectionals	2
Switch voice parts regularly	2
Use individual range charts for students to keep track of their own ranges	2
Encourage male students to recruit their friends	1

Chapter 4: Conclusions

The purpose of this study was to discover how middle school choir teachers accommodate their students' changing voices. The survey revealed a variety of class organization formats, repertoire choices, and teaching strategies. While many teachers and schools have many different methods for teaching middle school choir, there were many obvious commonalities between the various programs.

The majority of teachers in the survey determine their students' voice part assignments based on vocal range rather than gender. Teachers are acutely aware that their students are not only undergoing voice changes, but also physical, emotional, and social changes at this age. Many of the teachers make sure to educate their students about the vocal change as well as make the students feel comfortable and try to reduce the stigma that comes with the voice change. Teachers take the time to meet with their students regularly to check on the progress of their voice change as well as make sure the students feel secure in their place in the choir. Teachers are flexible with their students and often give them opportunities to switch voice parts. However, the majority of the teachers who separate their classes by voice part/gender divide their classes by gender rather than voice part. Many teachers reference the desire to keep students with their own gender even if they had not yet experienced any voice change. Multiple teachers recognized the need to meet with their transgender students to discover their preferred class.

There were 20 different organizational systems for choir classes shared in this survey. There were many variations involving grade level, gender/voice part, ability, and experience. One strong common theme was the separation of 6th grade from 7th and 8th grade. 76.7% of the teachers who teach 6th grade in addition to 7th and/or 8th grade have their 6th grade in a separate

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class or classes from the older students. 63.9% of the total participants separate all of their choirs by grade level. 8.7% of the total participants have separate 6th grade classes, but combined 7th and 8th grade classes. This data shows that it is best to separate 6th grade from older students, which makes sense based on the physical and vocal changes that take place over the course of sixth grade and between sixth and seventh grade.

62.5% of the participants have classes with mixed voice parts/genders (Group A) while the remaining 37.5% of the participants have single voice part/gender classes (Group B.) Over 90% of both groups teach two-part music. This is not surprising as two-part music works with almost all ensembles. Group A teaches substantially more three-part mixed and SAB music than Group B. This makes sense because Group A has mixed classes while Group B would need special rehearsals to practice this repertoire before a performance. For the same reason, Group B teaches considerably more SA and TB music than Group A since Group A would need a special rehearsal. Group B teaches more SATB music than Group A. This data is surprising because Group B would need a special rehearsal before performing this music, while Group A would not. However, only 44.6% of Group B teaches SATB music (and 32.9% of Group A), meaning that it is not a top repertoire voicing for either group.

68% of the Group A teachers who teach SA and TB repertoire prefer to teach one of the groups while the other group does independent work, whereas the other teachers utilize multiple rehearsal locations and/or accompanists to have students work on this separate repertoire simultaneously. 86.8% of the Group B teachers who teach mixed voice repertoire are able to schedule at least one special full choir rehearsal before performances. It is a viable option to teach this repertoire, but Group A teachers must plan ahead to accommodate all students and Group B teachers must schedule in advance to ensure the time for enough group rehearsal.

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The most common strategies that teachers in Group A provided for accommodating their students' changing voices were rewriting parts, allowing students to switch octaves, meeting frequently with students for range checks, and allowing students to switch parts when needed. 43.8% of the Group A teachers would prefer some form of voice part/gender separation in their classes. I expected that most of these teachers would prefer voice part/gender separation. However, some teachers stated that while they liked the idea of voice part/gender separation, they selected that they would not change their class structure as they thought it unfeasible.

Only 6.1% of the participants expressed that they have had difficulties scheduling voice part/gender separated classes. However, 32.4% of the participants expressed that the conflicts with other classes (particularly electives) have caused scheduling challenges. This implies that there would likely be a higher percentage of teachers who would have difficulties scheduling voice part/gender separated classes given they are having difficulties scheduling choir in general.

Final comments from the participants again indicated the importance of careful repertoire selection as well as creating a safe environment for students. Teachers emphasized the need to find repertoire with smaller vocal ranges as well as to choose repertoire that fits the specific students rather than general middle school level music. Statements about safe environments included educating students about their changing voices, making students feel comfortable with their voices, being a positive presence, and finding ways to show that the students are not alone in their struggles.

Many of the short answer comments indicated that participants assumed the term "changing voice" only referred to male students. Very few teachers wrote specifically about the female changing voice. This reflects exactly what Bridget Sweet found when examining the amount of research on the male changing voice relative to the amount of research on the female

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changing voice. These results indicate that teachers are less aware of the female changing voice and may need further education on the subject.

There is always room for additional research. If possible, a similar survey distributed at a national level could be very useful. It would be interesting to see a comparable study that also examines the relationships between the middle schools and their feeder elementary and high schools. Success at the middle school level is greatly impacted by the experiences that the students bring with them from the elementary schools. Similarly, the middle school choir directly impacts the success of the high school choir program. It would be fascinating to examine all three age groups within a particular school system and compare the overall data between systems with a focus on the structure of the middle school choirs.

There are already many lists of suggested repertoire for middle school choirs, but it would be beneficial to do another study and create new lists with more specific ensemble designations. For example, some SA repertoire might be better suited towards 8th grade students than 6th grade students, but a general list of suggested SA repertoire might not make that designation. I think it would also be useful to create a list of pieces with a narrower vocal range as this is something numerous teachers mentioned in the survey. Many of these teachers noted that all voice parts need narrow ranges and not just the baritones. There are many pieces in which the composer clearly knew to make a narrow range for the baritones, but still wrote huge ranges for the soprano and alto parts.

If teachers have the ability to work with their students in a setting that is separated by voice part/gender, they should take advantage of this opportunity to best support their classes. While it is clear that many teachers have little control over the organization of their choir classes, teachers can still utilize the results of this survey. There are many techniques listed to help

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teachers accommodate the changing voices of all their middle school students. It may take extra time and effort to incorporate these techniques into the middle school choir classroom, but it will be well worth it if students feel supported in their musical endeavors and secure in their voices. This will lead to knowledgeable, confident singers in the high school choir and beyond.

APPENDIX A: Survey Section 1: Class Organization

Changing Voices in Middle School Choir

My name is Christine Kirk and I am a music teacher currently working on my Master of Music at the University of the Arts. The purpose of this survey is to collect data for my thesis project on supporting changing voices in the middle school choir class. This survey should take no more than five minutes to complete. Thank you so much for your time and consideration.

* Required

Do you currently teach 6th, 7th, and/or 8th grade choir? *

☐ Yes

☐ No

Next

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Class Organization

Which grades do you currently teach? (Select all that apply.) *

☐ 6th grade

☐ 7th grade

☐ 8th grade

How do you determine what voice parts students sing? *

☐ I determine voice part based on gender.

☐ I determine voice part based on vocal range.

☐ Other: _____

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How are your classes organized? *

For the purposes of this question, gender/voice part will mean your classes are divided by gender and/or voice part. There will be a question addressing whether you divide by gender or voice part.

- ☐ Classes are divided by grade level only.
- ☐ Classes are divided by gender/voice part only.
- ☐ Classes are divided by both grade level and gender/voice part.
- ☐ Classes are mixed by both grade level and gender/voice part.
- ☐ Choir is not a scheduled class, but it is still divided by grade level only.
- ☐ Choir is not a scheduled class, but it is still divided by gender/voice part only.
- ☐ Choir is not a scheduled class, but it is still divided by both grade level and gender/voice part.
- ☐ Choir is not a scheduled class and it is mixed by both grade level and gender/voice part.
- ☐ 6th grade is a mixed class, 7th grade is split by gender/voice part, and 8th grade is a mixed class.
- ☐ 6th grade is a mixed class, 7th grade is split by gender/voice part, and 8th grade is split by gender/voice part.
- ☐ 6th grade is a mixed class, 7th grade is a mixed class, and 8th grade is split by gender/voice part.
- ☐ 6th grade is split by gender/voice part, 7th grade is split by gender/voice part, and 8th grade is a mixed class.
- ☐ 6th grade is split by gender/voice part, 7th grade is a mixed class, and 8th grade is a mixed class.
- ☐ 6th grade is split by gender/voice part, 7th grade is a mixed class, and 8th grade is split by gender/voice part.
- ☐ Other: _____

APPENDIX B: Survey Section 2: Accommodating Changing Voices**Accommodating Changing Voices**

What voicings do you teach in your choir repertoire? (Select all that apply.) *

- ☐ I teach two-part music.
- ☐ I teach three-part mixed music.
- ☐ I teach SAB music.
- ☐ I teach SATB music.
- ☐ I teach SA music that Tenors and Basses do NOT learn.
- ☐ I teach TB music that Sopranos and Altos do NOT learn.

If you teach SA music that Tenors and Basses do NOT learn and/or TB music that Sopranos and Altos do NOT learn, how do you structure this during rehearsal? *

- ☐ SA students work on music with teacher while TB students do independent work/TB students work on music with teacher while SA students do independent work.
- ☐ SA students and TB students both work on music simultaneously by using multiple locations and teacher works with both groups.
- ☐ I do not teach separate SA and TB music.
- ☐ Other: _____

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If you teach SA music that Tenors and Basses do NOT learn and/or TB music that Sopranos and Altos do NOT learn, how do you structure this during rehearsal? *

- ☐ SA students work on music with teacher while TB students do independent work/TB students work on music with teacher while SA students do independent work.
- ☐ SA students and TB students both work on music simultaneously by using multiple locations and teacher works with both groups.
- ☐ I do not teach separate SA and TB music.
- ☐ Other: _____

How else do you accommodate your students' changing voices during class?

Your answer _____

Would you prefer your classes to be organized differently? If so, how would you choose to organize them? *

Your answer _____

APPENDIX C: Survey Section 3: Changing Voices in Split Gender/Voice Part Classes**Changing Voices in Split Gender/Voice Part Classes**

How do you organize your students? *

- ☐ Students are divided by gender. (All female students are in one class, all males are in another. This includes transgender students.)
- ☐ Students are divided by voice part. (All Sopranos and Altos are in one class, all Tenors and Basses are in another.)
- ☐ Other: _____

What voicings do you teach in your choir repertoire? (Select all that apply.) *

- ☐ I teach two-part music.
- ☐ I teach three-part mixed music.
- ☐ I teach SAB music.
- ☐ I teach SATB music.
- ☐ I teach SA music that Tenors and Basses do NOT learn.
- ☐ I teach TB music that Sopranos and Altos do NOT learn.

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If you teach three-part mixed, SAB, and/or SATB music during choir classes that are divided by gender/voice part, how do you rehearse these pieces? *

- ☐ Students rehearse with tracks playing the missing parts and have at least one special rehearsal before performances with full choir.
- ☐ Students rehearse with only their parts and have at least one special rehearsal before performances with full choir.
- ☐ Students rehearse with tracks playing the missing parts and are unable to rehearse as a full choir before a performance.
- ☐ Students rehearse with only their parts and are unable to rehearse as a full choir before a performance.
- ☐ I do not teach three-part mixed, SAB, and/or SATB music during choir classes that are divided by gender/voice part.
- ☐ Other: _____

APPENDIX D: Survey Section 4: Additional Comments**Additional Comments**

Have you had any difficulties with organizing your choir classes such as scheduling conflicts? If so, what were they?

Your answer

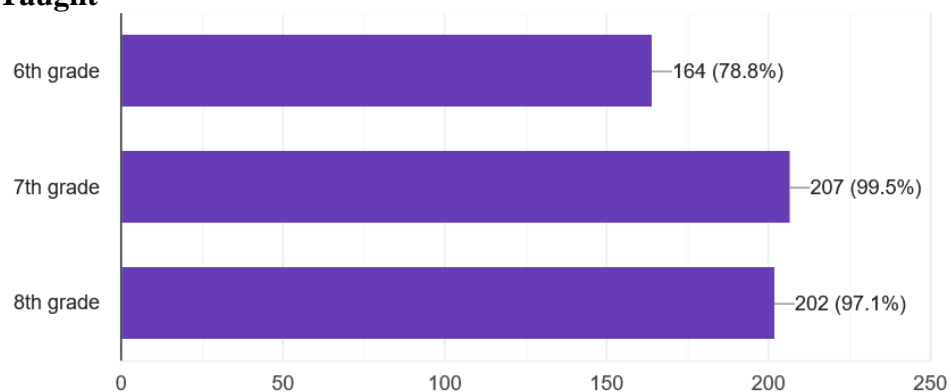
Do you have any additional strategies or comments regarding changing voices in middle school choir?

Your answer

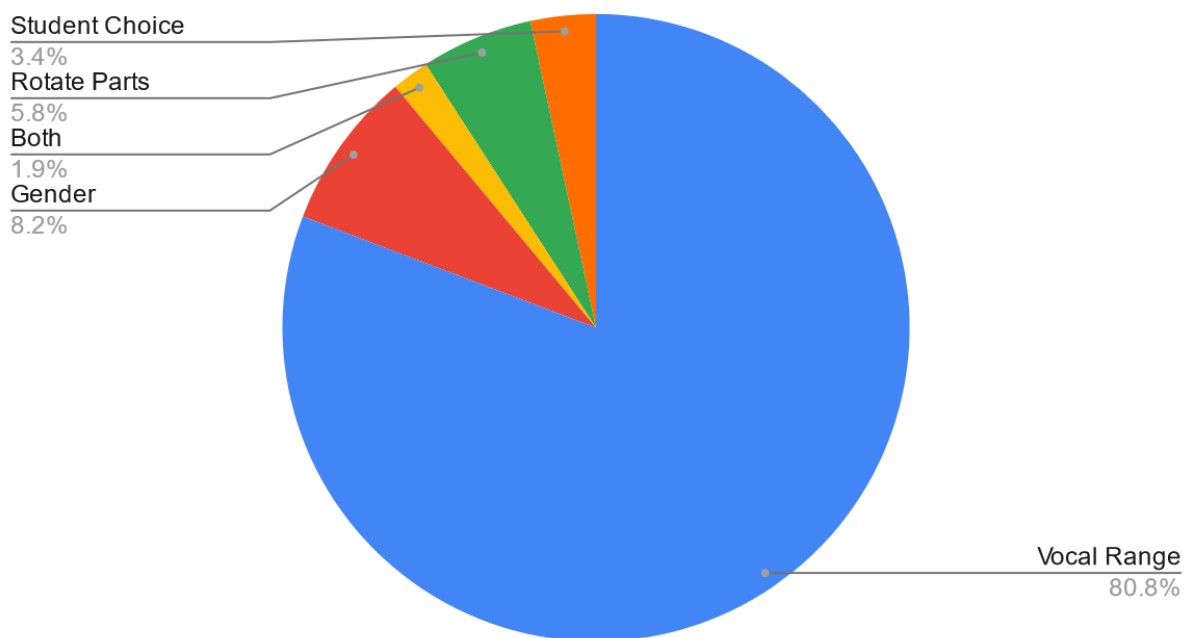
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APPENDIX E: Section 1 Survey Results

Grade Levels Taught



How to Determine Voice Parts



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How Are Your Classes Organized?		
Organization Method	Number of Participants	Percentage of Participants
Classes are divided by grade level only	84	40.4
Classes are mixed by both grade level and gender/voice part.	36	17.3
Classes are divided by both grade level and gender/voice part.	26	12.5
6 th grade is a mixed class, 7 th grade is split by gender/voice part, and 8 th grade is split by gender/voice part.	16	7.7
Classes are divided by gender/voice part only.	10	4.8
Choir is not a scheduled class and it is mixed by both grade level and gender/voice part.	5	2.4
6 th grade is a mixed class, 7 th grade is a mixed class, and 8 th grade is split by gender/voice part.	2	1
6 th grade is split by gender/voice part, 7 th grade is split by gender/voice part, and 8 th grade is a mixed class.	2	1
Choir is not a scheduled class, but it is still divided by both grade level and gender/voice part.	1	0.5
6 th grade is a mixed class, 7 th grade is split by gender/voice part, and 8 th grade is a mixed class.	1	0.5

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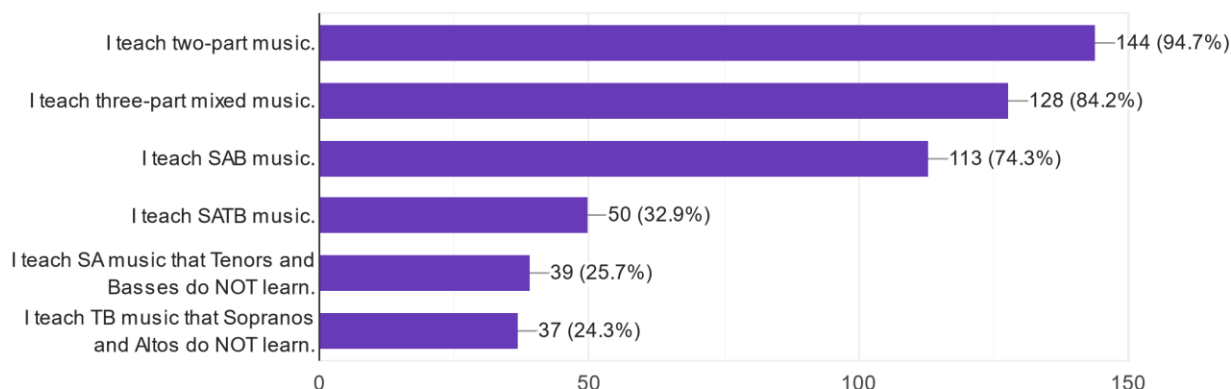
How Are Your Classes Organized? (Other Responses)		
Organization Method	Number of Participants	Percentage of Participants
6 th grade is a mixed class and 7 th /8 th grade are a combined mixed class.	11	5.3
6 th grade is split by gender/voice part and 7 th /8 th grade are combined/split by gender/voice part.	2	1
6 th grade is split by gender/voice part and 7 th /8 th grade are combined/split by gender/voice part AND ability.	2	1
All students in one group	2	1
Treble choirs split by grade, but TB choirs have all grades combined	2	1
6 th grade is a mixed class and 7 th /8 th grade are combined/mixed AND split by ability.	2	0.5
Beginner choirs are split by gender/voice part and advanced choirs are mixed.	1	0.5
6 th grade is a mixed class, 7 th grade is mixed class, and 8 th grade has both mixed classes AND gender/voice part classes.	1	0.5
6 th grade is split by gender/voice part, 7 th /8 th grade TB are combined, 7 th /8 th grade treble are combined AND split by ability.	1	0.5
Classes are divided by gender/voice part and years of experience.	1	0.5

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APPENDIX F: Survey Section 2 Results

What voicings do you teach in your choir repertoire? (Select all that apply.)

152 responses



How Do You Structure Time for Split Voice Part Repertoire?		
Strategy	Number of Participants	Percentage of Participants
SA students work on music with teacher while TB students do independent work/TB students work on music with teacher while SA students do independent work.	16	10.1
SA students and TB students both work on music simultaneously by using multiple locations and teachers working with both groups.	8	5.3
Both of the above options	1	.01
SA students work with accompanist while TB students work with teacher.	1	.01
Teachers who have separate voice part/gender choirs, but were directed to this part of the survey by giving an unclear answer for the class organization question.	22	14.5

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What Strategies Do You Use to Accommodate Changing Voices?	
Strategy	Number of Times Mentioned in Responses
Rewrite parts and/or allow students to sing in different octaves	49
Frequent range checks	26
Allow students to change voice parts when needed	22
Specific warm-ups/vocal exercises	16
Lessons/sectionals	13
Repertoire choice	13
Create a safe environment/normalize voice change/remove stigma	10
Education about voice change	9
Switch voice parts regularly	7
Seat students next to strong singers	5
All students learn all vocal lines	4
Display a voice part chart	4
Seat tenors and/or baritones together	3
Avoid gendered terminology	2
Bring in mature changed voices to sing with students	2
Encourage students to sing	1
Teacher composes/arranges repertoire	1

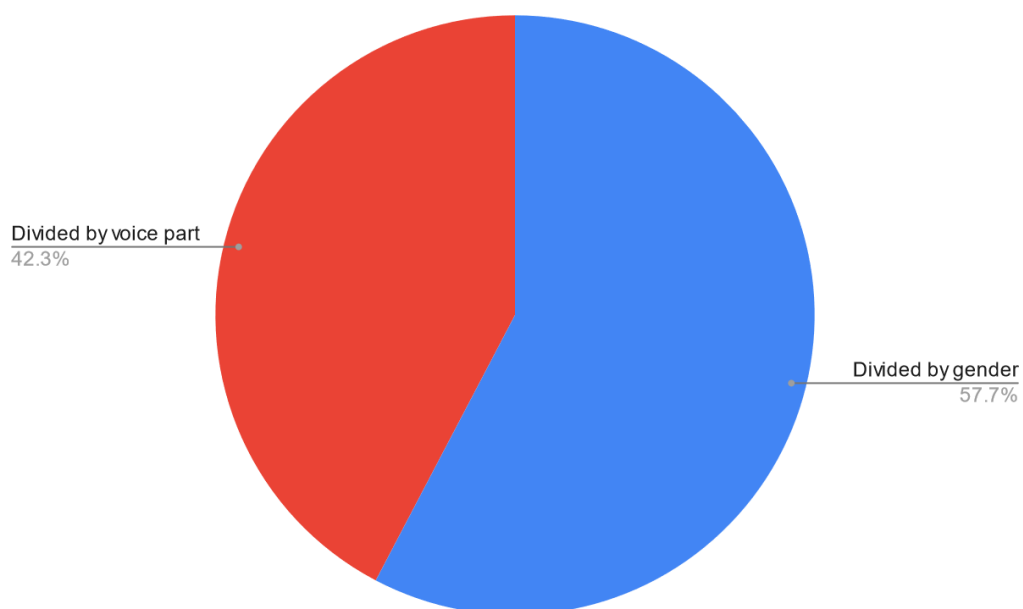
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How Would You Prefer Your Classes to Be Organized?		
Organization Method	Number of Participants	Percentage of Participants
Gender/voice part split	40	27.4
No change	19	13
Ability split	9	6.2
Grade level split	8	5.5
6 th grade mixed, 7 th /8 th grade combined, but gender/voice part split	5	3.4
8 th grade only gender/voice part split	5	3.4
6 th grade mixed, 7 th grade gender/voice part split, 8 th grade gender/voice part split	4	2.7
6 th grade mixed, 7 th /8 th grade combined with mixed auditioned class and two gender/voice part split classes	4	2.7
Answers about other issues such as block scheduling	4	2.7
Mixed grades	4	
7 th grade only gender/voice part split	3	2.7
Mixed grades, but grouped by both ability and gender/voice part	3	2.1
Not sure	3	2.1

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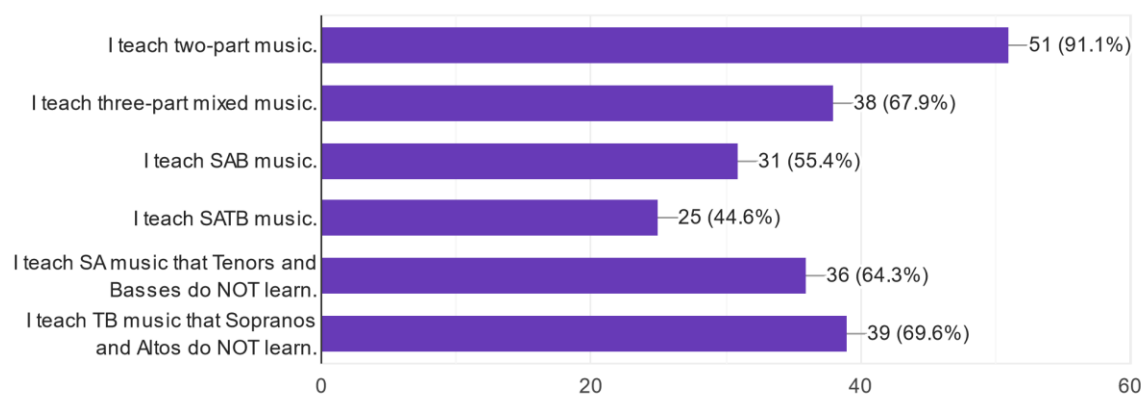
APPENDIX G: Section 3 Survey Results

How Do You Organize Your Students?



What voicings do you teach in your choir repertoire? (Select all that apply.)

56 responses



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How Do You Structure Time for Mixed Voice Part Repertoire?		
Strategy	Number of Participants	Percentage of Participants
Students rehearse with only their parts and have at least one special rehearsal before performances with full choir.	19	36.5
I do not teach three-part mixed, SAB, and/or SATB music during choir classes that are divided by gender/voice part.	14	26.9
Students rehearse with tracks playing the missing parts and have at least one special rehearsal before performances with full choir.	14	26.9
Students rehearse with only their parts and are unable to rehearse as a full choir before a performance.	3	5.8
Students rehearse with tracks playing the missing parts and are unable to rehearse as a full choir before a performance.	2	3.8

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What Conflicts Do You Have with Organizing Your Choirs?		
Conflict	Number of Participants	Percentage of Participants
Conflicts with other electives	34	16.3
Conflicts with advanced classes	13	6.1
Scheduling gender/voice part split classes	13	6.1
General scheduling conflicts	8	3.8
Conflicts with other after-school activities	5	2.4
Conflicts with special education and remedial classes	5	2.4
Grade levels cannot be combined	5	2.4
Choir does not meet frequently enough	4	1.9
Students who did not choose choir are placed in it	4	1.9
All grade levels are combined	3	1.4
Conflicts with Physical Education	3	1.4
Scheduling conflicts due to multiple choir teachers	3	1.4
Teacher has no input	3	1.4
Difficulties scheduling combined rehearsals before performances	2	1
Number of male students in classes is not balanced	2	1
Teacher teaches at multiple schools	2	1
Choir is not a graded class	1	.05
No designated choir room	1	.05

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Additional Strategies	
Strategy	Number of Times Mentioned in Responses
Careful repertoire selection	14
Create a safe environment	13
Be positive/encouraging	11
Educate students about voice change	11
Frequent check-ins with students	11
Separating by gender/voice part	11
Use of specific vocal exercises for changing voices	10
Promote healthy singing	7
Allow students to drop the octave	5
Avoid gendered terminology/voice part labels	5
Allow students to switch parts	3
Build relationships	3
Rewrite parts as needed	3
Be flexible with transgender students' preferences	2
Bring in older singers to rehearse with middle school students	2
Bring in teacher of opposite gender to work with students	2
Seat male students together regardless of voice part	2
Small group lessons/sectionals	2
Switch voice parts regularly	2
Use individual range charts for students to keep track of their own ranges	2
Encourage male students to recruit their friends	1

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