BEST PRACTICES FOR DEVELOPING FLUENT SIGHT SINGERS:
A REVIEW OF LITERATURE

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Abstract

The purpose of this capstone project was to explore the research and best practice literature on developing fluent sight singers, applying it to an elementary choral music program. Topics addressed included (a) the role of Curwen Hand Signs in the sight singing process, (b) the impact of solfege syllables on sight sing, (c) whether festival participation influences a teacher’s decision to teach sight singing, and (d) if individual sight singing quizzes are beneficial to a students’ ability to become a fluent singer. Several researchers found that using Curwen hand signs and kinesthetic approaches were beneficial to student learning. In other research, the use of technology also proved to be beneficial as part of sight singing methods to use with students. Students who were able to use interactive white board technology also had a positive response to a kinesthetic approach. Furthermore, students’ ability to audiate, or create mental representations of patterns before seeing notation, appears to be an important indicator of their ability to sight sing. Suggestions are provided to assist music educators of varying levels with developing quality sight singing methods in their classrooms. Students who are provided with regular opportunities for sight singing from an early age, and engage in frequent practice of sight singing skills, may develop into fluent sight singers and independent musicians.

*Keywords:* sight singing, music education, Curwen hand signs
A role of music teachers is to develop students into successful, independent, musicians. Sight singing and sight reading are very important aspects of this process. Sight singing can be described as the process of singing a piece of music or vocal exercise “at first sight,” (Sight-Reading, Sight-Singing, 2016) without prior practice. This would involve using only the notation as a reference for performance. In order to ensure students are able to read and sing music independently, teachers must help them to develop the foundational knowledge and skill, essential to this process. Just as students are provided with strategies to read a book, music educators must teach students beneficial approaches to read and sing music.

A contemporary issue in music education is that teachers may have these goals for their students, but are unsure where to begin. Teachers may believe that the ability to sight sing will help improve their students’ performance, but may not have a background in the pedagogy necessary to effectively teach this topic. Understanding the research and best practices for developing fluent sight singers would allow teachers to better develop their students’ knowledge and skill in this area. Sight singing is directly related to the National Standards for Music Education (NAfME, 2016) that many teachers use to guide their lessons. With a better understanding of how to develop students’ ability to sight sing, teachers may also be more effective in realizing outcomes suggested by the standards in their classrooms.

The purpose of this capstone project was to explore the research and best practice literature on developing fluent sight singers, applying it to an elementary choral music program. In my teaching, I strive to allow my students time to be independent, musical thinkers who are able to perform and create music on their own. I want my students to be able to read and understand music, without always requiring the help of a teacher. By studying different strategies used for sight singing, I can help to prepare my students to become more fluent sight singers. I
am interested in how teachers have used sight singing in varying grade levels, as well as assessment strategies that can be utilized to track student progress. The following essential questions were addressed in this project:

1. Does use of Curwen Hand Signs aid in the sight singing process?
2. Do students who study solfege syllables sight sing more effectively than those who do not?
3. Does festival participation impact a teacher’s decision to teach sight singing?
4. Are individual sight singing quizzes beneficial to a students’ ability to become fluent singers?

**Review of Literature**

According to Gordon (1979), students’ ability to audiate, or create mental representations of music in their head, is directly related to sight reading. Gordon discussed the use of a *Primary Measures of Musical Audiation* (PMMA) test. The test does not require students to be able to read music or be familiar with musical terminology, and can be used with children as young as 5 years old. By discovering valid means of assessment and providing students significant feedback from an early age, teachers may be able to assist in monitoring students’ ability to audiate, which may be an important component of sight singing ability. Garner (2009) supported Gordon’s beliefs, describing audiation as “The ability to hear with discernment and play back what is heard or created inside one’s own head” (Garner, 2009, p.46). Garner (2009) also discussed psychologist Howard Gardner’s theories that activities that require bodily responses may stimulate the musical sphere of the brain (p.46). These ideas may ultimately support using Curwen hand signs as an aid to students’ success when sight singing. The use of hand signs may
be an important strategy in developing the ability to play back a melody silently in our head, a process that appears to be related to sight singing prowess.

Furthermore, Demorest (2001) referred to the work of Gordon, focusing on the why of sight singing. He found that teaching students to sight sing may help to create independent thinkers, further developing students’ musicianship. Those who feel more confident in their musicianship may be more likely to pursue music throughout their lives. These results align with Garner (2009), who believed sight singing should be taught from an early age in order to encourage independent musicianship.

Demorest (1998) conducted a study to determine if individual sight singing assessment was more beneficial to students than group sight singing exams. The researcher concluded that individual testing proved to be more effective. Students who received the individual assessment scored higher on their sight singing exercises. This study could be very helpful to choral teachers who are designing curriculum or who are seeking strategies to improve students’ sight singing abilities.

Most educators would agree that some form of sight singing should be implemented into the music classroom, however some teachers may not know when it should be introduced. According to Fine, Berry, and Rosner (2006), familiarity of tonal patterns and recognition can play a key factor in sight singing. Their study allowed vocalists to sight sing two slightly different vocal patterns. The participants performed chorales where melodic and harmonic alterations were made. The less experienced singers had more errors in the second altered pattern. The study also related these processes to text reading. Findings were similar to Gordon, (1979); creating mental representations through memory recall can aid in the sight singing process.
Audiation and Sight Singing

Authors in McPherson and Parncutt (2002) discussed the importance of kinesthetic and perceptual skills needed to be a successful sight singer. Another topic of focus in this book came from the chapter entitled, *From Sound to Sign* (McPherson & Gabrielsson, 2002), where the authors described the use of mental representations when sight singing. McPherson and Gabrielsson (2002) advocated for the benefits of learning sound before learning notation. They suggested that first practices with sight singing could begin from a very early age using strategies such as pre-notation and memory recall development. A possible gap in research could indicate that not many studies have examined if age plays a key role in one’s ability to sight sing. A more “experienced” vocalist may in fact be a less proficient sight singer, due to a lack of essential strategies used when performing.

One of the first advocates who believed students should experience musical sounds before being introduced to notation or symbols was Johann Heinrich Pestalozzi. It was Joseph H. Naef who introduced Pestalozzi’s ideas into American schools in the early 1800s. Pestalozzi was well known for seven recommendations for teachers, which he described in his *Principles of the Pestalozzian System of Music* (McPherson & Gabrielsson, 2002). The recommendations included:

1. To teach sounds before signs and to make the child learn to sing before he learns the written notes or their names.

2. To lead him to observe by hearing and imitating sounds, their resemblances and differences, their agreeable and disagreeable effect, instead of explaining these things to him—in a word, to make active instead of passive in learning;
3. To teach but one thing at a time—rhythm, melody, and expression, which are to be taught and practiced separately, before the child is called to the difficult task of attending to all at once;

4. To make him practice each step of these divisions, until he is master of it, before passing to the next;

5. To give the principles and theory after the practice, and as induction from it;

6. To analyze and practice the elements of articulate sound in order to apply them to music; and

7. To have the names of the notes correspond to those used in instrumental music.”

(McPherson & Gabrielsson, 2002, p.101)

One of the key elements that McPherson and Gabrielsson (2002) pointed out was the importance of teaching rhythm, melody, and expression separately before including them together. Just as students must first understand letter recognition and letter sounds before learning how to read and write language, separating the components of music may be necessary to develop the ability to read and write music. Henry (2011) concluded that students who were not fluent at reading rhythms would be less likely to perform accurate pitches. Similarly, Yorke Trotter (1914) believed that “A child must first have the effect in his mind before he knows the symbols that should be used to express the effect” (Yorke Trotter, 1914, p. 76).

Kodaly Method and Hand Signs

Cassidy (1993) conducted a study that examined the effectiveness of different sight singing strategies amongst elementary education nonmusic majors. In the study there were several different groups that were examined. Cassidy (1993) concluded that students who were given instruction using solfege syllables and Curwen hand signs scored higher on the given
posttest than students who used “loo” and staff notation. Overall, based on these results it seems that the kinesthetic aspect of using the Curwen hand signs proved to be most effective for this group. The hand signs may also have been easier to understand for younger students when compared to trying to teach staff notation at the primary level. In contrast, McClung (2008) concluded that using Curwen hand signs resulted in no significant difference in the ability to sight sing when studying high school choristers who had extensive training in both moveable solfege and Curwen hand signs. It was also determined that learning style may have played a role in the results. The researcher concluded that “A pedagogical strategy for linking Curwen hand signs with students’ preferred modes of learning (especially the kinesthetic mode) is recommended” (p. 255).

Research similar to Cassidy’s (2013) was conducted by Liao (2008), who studied the use of gestures when having five and six year old children sing tonal patterns. It was determined that when students used gestures, they scored significantly higher on sight singing examples than when they did not. Instead of using just Curwen hand signs, Liao (2008) came up with several simple, varied gestures that related to different melodic tendencies. For example, for a small leap, students would start with hands together, open hands, and then close them again if the pitch went back down.

The Dalcroze Approach and Sight Singing

Anderson (2012) sought to determine whether methods using the Dalcroze approach affected sight singing abilities of children. Solfege, improvisation, and eurhythmics are common practice elements using the Dalcroze approach. Anderson (2012) discussed that the Dalcroze approach primarily uses the fixed do system, which proved to be more successful with adults and musicians with advanced training. For younger children and beginner musicians, the moveable
do system may be more appropriate. Anderson (2012) stated that “No one can be a musician without possessing the faculty of recognizing and combining sounds, as well as that of regulating and accentuating their movements” (p. 28).

Reifinger (2011) conducted a study to find if there were differences in using solfege syllables rather than a standard “loo” syllable when teaching sight singing. The researcher also sought to explore if patterns that related to familiar songs had an effect on the students’ sight singing proficiency. In the study, students were given time to “Create a mental image of what the pitches sound like, formulated only by using notation” (p. 206). Another important aspect of this study was that teachers exclusively used a 5-line staff with the pitches do, mi, sol and la. A limitation of the study may have been that some of the students were only in kindergarten and were not yet familiar with a 5-line staff. Those students who used solfege did show improvement with the familiar patterns. The original hypothesis by Reifinger (2011) was that students who were able to relate the patterns to familiar songs would be more successful, however this did not prove to be true based upon the indicated results. Students who were given relatable patterns did no better than those students who were given patterns that were not familiar.

While mental representations, memory recall, and perceptual/kinesthetic skills all play a role in sight singing, many other factors have also been studied. As students get older and participate in private lessons or ensemble singing, more specific strategies have been implemented. Killian and Henry (2005) conducted a study comparing successful and unsuccessful strategies for individual sight singing and performance. They sought to explore the benefits of having a 30 second study period before singing each vocal example, and how this played a role in the performer’s success. The researchers also observed different practice techniques used by the singers to determine if any particular technique stood out between the
different levels of achievement. Killian and Henry (2005) used students from two All-State camps, who were preparing for the upcoming all-state auditions, as participants in their study. The students were organized into groups, categorized by low, middle, and high accuracy performances. Each student sang two melodies, one with 30 seconds preparation and one without. The researchers found that students who had 30 seconds to prepare were more successful during this exercise. It should be noted that these students may not represent the typical high school singer, since they were all participants in an all-state camp. Strategies used by high accuracy singers included tonicizing, use of Curwen hand signs, and singing out loud. Some of the unsuccessful strategies included looking away from music, shifting the body, and loss of the steady beat. The findings of this study are similar to results obtained by McClung (2008), who found no relationship between using Curwen hand signs and not using hand signs when all students studied were taught hand signs and moveable do. This suggests that for high accuracy singers, use of a strategy with which students are familiar may not play a part in their success. However students with insufficient knowledge of certain strategies may be less successful.

**Study Time and Rhythmic Reading**

Munn (1990) and Parker (2007) also studied successful strategies, with findings similar to Killian and Henry (2005). Munn (1990) addressed the belief that sight singing enables the student to independently pursue and enjoy life-long musical experiences. He also examined the impact that contest or festival ratings and expectations play when it comes to teaching sight-reading in the choral classroom. It was found that a structured systematic method is most effective when teaching students how to sight sing. Furthermore, several texts/resources were provided to educators to guide their chosen method of teaching.
Henry (2011) determined that rhythm reading ability had a great effect on a student’s accuracy in sight singing pitches. Students who were unable to reproduce indicated rhythms, were also likely to lack pitch accuracy. Henry concluded that further research was needed to see how this may compare to instrumental sight reading.

**Technology and Sight Singing**

In today’s society there have been tremendous gains with technology that could aid educators in the music classroom. Teachers who receive professional development in this area may be more likely to implement technology into their classrooms (Bauer, Reese, & McAllister 2003). Bauer et al., (2003) conducted a study to determine the effect of professional development on teachers’ use of and comfort with music technology. The researchers found that after receiving training, teachers were more likely to use technology in the classrooms. Crochet and Green (2012) examined different ways that technology could be integrated into the music classroom. They discussed the use of handheld recorders during rehearsal, and how this could help eliminate performance anxiety. According to Crochet and Green (2012), “Using the recorders allows students to sing freely, and eliminates performance anxiety that may be caused by singing alone in front of their peers” (p. 52). Once students at South Pointe High School submitted their recordings, their teacher provided each of them with valuable feedback, with the ability to study their continued progress over time (Crochet & Green, 2012).

Another way to implement technology in the classroom is to incorporate a program called SmartMusic into daily instruction and assessment (Crochet & Green, 2012). Mike Doll, a former band director at Rawlinson Road Middle School, used SmartMusic to assist with practice, record assessments, and track student progress over time (Crochet & Green, 2012). SmartMusic has a vast repertoire stored in the program, or the teacher can import exercises created in other
programs such as Finale. One of the most beneficial aspects of SmartMusic is that the program can store individual students’ portfolios, allowing teachers and students to track their progress from entering a program until they leave the school (Crochet & Green, 2012).

According to Ewers (2004) another successful strategy included the use of a computer-assisted program to aid in learning sight singing. When two groups were studied (one with the program and one without), the students who participated in the 9-week computer-based training scored higher than the other group. However, this study may not have accounted for extraneous factors, such as outside instruction, or previous musical experience amongst the two groups.

Compatible with the findings of Ewers (2004), Carlisle (2014) determined that the use of handheld technology may benefit student learning in elementary general music classes. Carlisle (2014) discussed the supplemental use of handheld technology in an elementary music classroom, and how it may aid in the teaching process using the Dalcroze, Kodaly, and Orff approaches. With different foci amongst these three approaches of singing, rhythm, and playing instruments, handheld technology could be useful for all students. Carlisle (2014) explained one way teachers could use handheld technology is to videotape students singing folk song melodies using solfege and hand signs. Teachers could then go back and review student effort and accuracy. Another suggestion by Carlisle (2014) was that teachers invest in digital music applications for phones or tablets. There are numerous apps related to choral warm-ups and exercises that would be beneficial to the sight singing process. Carlisle (2014) suggested that when physical resources are unavailable, using technology as a supplement would be beneficial.

Assessment of Sight Singing

In order for students to become aware and accountable for their own musical progress, it is essential they are provided opportunities to practice self- and peer-assessment. Valle, Andrade,
Palma, and Hefferen (2016) described four steps for students to use to provide suitable feedback to peers. “The deliverer of the feedback first asks questions of clarification about the other student’s performance, identifies strengths and other aspects of the performance that are of value, raises concerns about the work, and offers suggestions for ways in which the other student can improve” (p. 42). When students are required to evaluate each other’s work, they are learning to become more independent musical thinkers (Valle, et al., 2016). If students are required to perform in front of the class individually, having their peers provide them with feedback on their performance would help to keep all students occupied and listening to each other’s progress (Valle, et al., 2016).

**Group Festivals and Sight-Singing**

Norris (2004) studied sight singing requirements at large-group festivals throughout the U. S. While educators can teach sight singing from a young age (Gordon 1979; Reifinger, 2009), it is important to find the underlying reasons why teachers engage in sight singing instruction. Norris (2004) found that more than half of the US does not require sight singing at large group festivals, and that when it is mandated, the score does not factor in to the ensemble’s overall rating. In the future, researchers might consider surveying schools that are not required to participate in sight singing in large group festivals and inquire about how often those teachers implement sight singing in their classrooms.

**Predicting Sight Singing Abilities**

Along with gathering the best practices to develop fluent sight singers, educators may also find it beneficial to have ways to predict their ensemble’s sight singing ability. Daniels (1986) sought to explore the factors that related to the sight singing ability of students in high school mixed choirs. Twenty schools participated in this study, and each recorded a sight singing
example, with individual students also completing a questionnaire. Based on the results of the questionnaire, there were several key factors which played a role in predicting students’ sight singing abilities. First, choir students who also played a musical instrument rated highly on their sight singing exam. School size and ethnic make-up were also factors that played a role in the students’ sight singing accuracy (Daniels, 1986).

Demorest and May (1995) also explored factors that influenced students’ sight singing achievement. In this study, multiple groups were examined – two used a fixed-do system and the other two used moveable-do. The groups using the moveable-do system scored significantly higher on sight singing exams. The researchers also determined the primary factors leading to success were the number of years of school choir experience, followed by the number of years of piano instruction. The relationship between playing an instrument and sight singing achievement is similar to the findings of Daniels (1986).

Darrow and Marsh (2006) conducted a study of 50 community choir members who were assessed on their ability to predict and assess their own sight-singing skills. In the article, the authors identified the key components and sequential steps of the sight singing process. They found that students were reasonably accurate in predicting their sight singing success on the 5 vocal exercises they were asked to sing. The authors noted that there was frequently a lack of individual sight-singing assessment in today’s school system. Mostly due to time constraints, teachers seem to rely more on group testing rather than accounting for individual progress. The researchers concluded, “Sight-singing is the skill most important to good choral musicianship” (p.21).

Gromko (2004) also sought to explore predictors of sight reading abilities of high school wind players. In this study, four high school band programs participated. Three students were
tested over the course of two 50-minute periods, with one school utilizing a single 90-minute period. The first task was to have all of the students take the *Advanced Measures of Music Audiation* test (Gordon, 1989). This test assessed the students’ level of tonal and rhythmic audiation. Next, students took two subtests from the *Kit of Factor-Referenced Cognitive Tests*, which measure mental rotation ability (Ekstrom et al., 1976). The schools were also able to provide student scores for reading comprehension and math achievement, which were compared to scores on the music tests. It was found that “Musical intelligence may draw on, and enhance development in, other domains bringing evidence in support of near-transfer effects of music instruction” (Gromko, 2004, p.13.). This may mean that strategies used in sight singing could potentially transfer to other subjects such as math and language arts. For example, music reading skills may be applicable to comprehension of literary reading skills. Gromko (2004) also discussed the importance of having students sing or chant their parts before physically playing them on their instrument.

Munn (1990) addressed the belief that sight singing enables the student to independently pursue and enjoy life-long musical experiences. By teaching students how to sight sing, teachers enable students to create a strong sense of musical individuality, nurturing their ability to become independent thinkers of music. The researcher also discussed the impact that contest or festival ratings and expectations play when it comes to teaching sight reading in the choral classroom. Munn (1990) stated that structured, systematic methods, are most effective when teaching students how to sight sing.

**Gender Differences and Sight Singing**

Along with the previous strategies discussed, another aspect to consider is the willingness of students to participate. Phillips and Aitchison (1997) conducted a study amongst students in
general music grades 4, 5, and 6 that included a yearlong program of vocal instruction. The researchers observed that girls tended to score higher on pitch matching activities than boys.

Liao (2008) also found that boys were less successful at sight singing tonal patterns, although the use of gestures helped the sight singing accuracy of both boys and girls who participated in the study. While this may be accurate, if a student is reluctant or unwilling to participate, even gestures may not be helpful (Warzecha, 2013).

Another strategy to encourage participation, especially from boys, is to be sure to provide quality vocal models to which they can relate. This ideology concurs with Ritchie and Williamon (2011), based on their findings that students who were learning an instrument or receiving voice instruction scored higher on a musical self-efficacy test than those who were not. The study also found that girls’ self-efficacy scores were higher than boys (Ritchie & Williamon, 2011). When students are sight singing, it is imperative to validly assess their ability. We must understand whether students are not comprehending the material or if they lack confidence in their ability to perform.

Fisher (2014) explored whether the self-efficacy of adolescent males was affected by voice change, grade level, and experience. First, participants completed the Singing Self-Efficacy Scale for Emerging Adolescent Males. Next, the students were individually recorded singing simple vocal exercises to obtain each participants’ range. Less than fifty percent of all 6th and 7th grade students had changed voices, while 87% of eighth grade male students had changed voices. Fisher found that there was no correlation between voice change and grade level, however experience did play a role in the students’ self-efficacy, specifically with students who had three or more years of experience. Based on this study a student in the primary grades may not have had enough experience with vocal pedagogy to feel confident when sight singing. When
assessing sight singing, the teacher should determine if a student truly needs musical assistance, or if the issue lies in the students low level of self-efficacy form musical performance.

Implications for Music Teaching and Learning

When to Introduce Sight Singing

Garner (2009) stated that “Children learn best during these early stages, and that music listening opportunities should be offered at this time” (Garner, 2009, p.47). It was encouraged that singing be introduced from an early age, even before kindergarten (Garner, 2009). To begin, students must understand how to use their head voice properly, along with maintaining appropriate vocal health (Phillips & Trollinger, 2006). Phillips and Trollinger (2006) stated “The worst thing children can do is to sing everything in the chest voice, which they are apt to do without proper instruction” (Phillips & Trollinger, 2006, p.7). I normally start my kindergarten classes with siren warm-ups, discussing the different ways we can use our voice. I also stress to the students that we are all here to learn together and that our classroom should be welcoming to everyone; no one should ever feel uncomfortable. By promoting a positive atmosphere, students may be more willing to try new things. For some children, this may be the first formal musical experience they have had.

In my classroom I begin solfege echo patterns as early as kindergarten. Students use the Kodaly hand signs beginning with sol and mi to understand high and low (Garner, 2009). At this point we do not read notes on a staff, but children use kinesthetic movements, as McPherson & Gabrielsson (2002) described, to correlate high and low sounds. This is, in fact, the beginning stages of sight singing and understanding how music works. As students gain knowledge of musical notation, I begin to introduce students to a simplified staff. For example, in first grade this could be a three-line staff using mi, sol, and la (Cassidy, 1993). Students could first have
study time for a simple 3-note example, and use their Kodaly hand signs to help work through the process. In my personal experience, I find that the Kodaly hand signs are very beneficial to my students’ learning. One thing that I constantly have to remind my students about is that the hand signs are only helpful if they are actually trying. I find that some students get lazy, and just move their arm around, which is not benefitting them at all. The students who always try giving their best effort, have shown drastic improvement in pitch recognition and sight singing abilities. Lowell Mason was another advocate who supported children first experiencing musical sounds and patterns before learning to read music notation (McPherson & Gabrielsson, 2002).

Gordon (1979) discussed that students may benefit from approaching music reading from a sound before notation perspective. Even in instrumental ensemble classes, educators can have their students sing their parts before playing them on their instruments. It is important that students know what their part should sound like, even if they are not yet able to produce their part on their instrument or with their voice (Gordon, 1979). In my experience in middle and high school band, my directors would always say “If you can’t say it, you can’t play it.” By allowing our students to create mental representations and audiate different musical patterns, we are holding them more accountable for their individual music learning. McPherson and Gabrielsson (2002) suggested memory recall strategies, which could include having students echo solfege patterns of different lengths. This is something that I plan to incorporate more into my classroom.

**Supporting Boys When Sight Singing**

I think in order for us to attempt to eliminate any hesitancy to singing among boys, we must encourage a nurturing learning environment for our students. If students know they are working together to accomplish a common goal, and that their teacher and classmates are there to
support each other, students may be more likely to participate (Ritchie & Williamon, 2011). I think by incorporating singing and sight singing into daily instruction, students may also be more willing to learn and participate (Cassidy, 1993).

I believe that gender roles may play a factor in boys’ lower self-efficacy when sight singing. In some cases, parents may find it less favorable for their sons to participate in music or singing than in other activities. Such pressure from families or friends may discourage some students from wanting to participate in this area of learning (Warzecha, 2013). While this disinterest tends to occur in later elementary school years, music becomes favored again as students enter high school. According to Warzecha (2013), “If educators can understand why boys reject singing, this knowledge can be used to encourage them in the positive direction” (p. 43). I always remind my students that I must evaluate their progress based on what they demonstrate in class, and not just what I think they might know. It is important students perform their best at all times. I face this situation now frequently in my teaching, and am eager to spend more time talking to students and learning about where the hesitation may be coming from (Warzecha, 2013).

**Using Technology with Sight Singing**

In a middle school or high school choral class that meets every day, for example, I think a certain amount of time should be set aside during each class to develop sight singing skills (Munn, 1990). I also think that sight singing can be addressed directly when working on music for concerts. For example, teachers may use literature that students are already working on to practice reading music and understanding how to sight read. This could easily be done using SmartMusic (Crochet & Green, 2012). The time spent focusing on sight singing does not
necessarily need to be on random examples, but rather could use pieces students are already preparing to perform.

Another strategy that I believe would be useful in my classroom based on the Kodaly approach is to video record student performances (Cassidy, 1993). This use of technology could allow students to assess group performance after concerts and rehearsals (Valle, et al., 2016). It would also offer them the opportunity to self-assess individually, and to engage in peer assessment, providing meaningful feedback and suggestions for improvement. After studying this literature, this is something I would now like to implement into my classroom. Using the guidelines previously mentioned, students could provide quality feedback, and in the process become more educated music listeners. In sight singing study, understanding errors and why they take place is essential to improving sight singing strategies.

Expectations

Along with using their head voice, students must also be able to differentiate high and low sounds, and have an understanding and ability to match pitch. In the primary grades, K-2, this should be a primary focus, using only sol-mi or sol-mi-la (Cassidy, 1993). It is essential for students to be able to recognize these patterns as well as accurately match pitch (Gordon, 1979). It could be evident that a student is able to recognize and point out the pitches, but unable to communicate them vocally. See Table 1, which indicates learning targets by grade level that are aligned with the literature. These may be helpful in provided a structured, sequential approach to facilitate sight singing achievement.
Table 1

*Sequential Model for Elementary Sight Singing Practice*

<table>
<thead>
<tr>
<th>Grade</th>
<th>Learning targets</th>
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| K     | - Proper use of head voice (Phillips & Trollinger, 2006)  
      | - Demonstrates accurate pitch matching for sol-mi (Cassidy, 1993)  
      | - Differentiate between high and low sounds (Garner, 2009)  
      | - Demonstrate Curwen hand signs for Sol-mi (Liao, 2008) |
| 1     | - Proper use of head voice (Phillips & Trollinger, 2006)  
      | - Accurately match pitch using sol-mi-la (Cassidy, 1993)  
      | - Echo simple melodic patterns using solfege while maintaining pitch accuracy (Phillips & Trollinger, 2006)  
      | - Demonstrate Curwen hand signs for sol-mi-la (Liao, 2008) |
| 2     | - Proper use of head voice (Phillips & Trollinger, 2006)  
      | - Identify sol-mi-la on a three line staff (Cassidy, 1993)  
      | - Introduce 5-line staff (Jacobi, 2012)  
      | - Begin examples on a 5 line staff in the key of C Major (Liao, 2008)  
      | - Demonstrate Curwen hand signs for do-sol (Liao, 2008) |
| 3     | - Proper use of head voice (Phillips & Trollinger, 2006)  
      | - Able to identify note names and solfege on a 5 line staff (Jacobi, 2012)  
      | - Able to identify solfege syllables in sight singing examples with stepwise motion (Liao, 2008)  
      | - Accurately match pitch during examples (Garner, 2009) |
| 4     | - Proper use of head voice (Phillips & Trollinger, 2006)  
      | - Demonstrate Curwen hand signs for all solfege syllables (Liao, 2008)  
      | - Perform exercises with musical expression (Jacobi, 2012) |
| 5     | - Proper use of head voice (Phillips & Trollinger, 2006)  
      | - Pitch matching accuracy on all solfege syllables (Garner, 2009)  
      | - Perform examples on a 5-line staff with leaps (Liao, 2008)  
      | - Demonstrate Curwen hand signs while singing (Liao, 2008)  
      | - Perform examples using musical expression (Jacobi, 2012) |
Table 1 focuses primarily on melodic and pitch accuracy. An initial step in this is to ensure that all students are using their proper head voice, a skill that should be reinforced in all elementary grades (Phillips & Trollinger, 2006). Encouraging vocal health will preserve young voices, and help to limit any vocal damage in the younger years (Phillips & Trollinger, 2006). In kindergarten, students should be able to echo basic sol-mi patterns, as well as differentiate between high and low sounds (Garner, 2009).

As students progress to the intermediate grades, the 5-line staff is introduced. While many activities and songs in the primary grades are taught by rote, if we do not introduce our students to basic notation at a somewhat early age, we may be doing them a disservice (Jacobi, 2012). Furthermore, Liao (2008) found that incorporating gestures in singing is very beneficial. Throughout the instructional sequence outlined in Table 1, the Curwen hand signs are used to aid students with learning solfege and to assist in enhancing their sight singing abilities (Liao, 2008).

**Example Lessons**

For students to maintain their progress, I find it necessary to include singing and sight singing into daily instruction (Munn, 1990). This may include vocal warm-ups at the beginning of class, and using gestures to accompany the singing and dictate the direction of the voice (Liao, 2008). One type of activity that I could do with kindergarten children is to ask them questions like “What’s your favorite food? What’s your favorite color? Sing me your name.” Students then could answer the question individually using a sol-mi response. When students sing their response, I would plan to have them simultaneously perform their Curwen hand signs of sol and mi. Based on findings by (Liao, 2008) gestures are beneficial during student singing. I’ve found that most students, especially at a young age, are eager to respond to these types of activities (Warzecha, 2013). By incorporating activities such as this one, I am able to assess pitch
matching individually in a fun and comfortable learning environment (Warzecha, 2013). Instead of saying “Okay class, today I am going to test you on sol-mi,” the assessment could be presented more informally in a manner that the children view as a game (Rohrer, 2002). If there are students who are shy, especially at the early levels, I give them time to think, or come back to them the next week. Another option at first could be to allow students to sing with a partner, or come sing for me before school.

Providing opportunities for competition and academic games is another strategy that I would like to further explore in my classroom. This can potentially aid students in developing motivation to succeed, and in turn improve their sight singing abilities. Rohrer (2002) discussed the pros and cons of incorporating competition into the music classroom. While this is a topic undergoing debate, I think as educators, we need to know our students and do what works for our own unique teaching environment. Based on my personal experience, I find that most students in my classroom enjoy competition, and even those who do not like to take action as leaders still enjoy participating in team games. Also, when activities or sight singing is in a game format, it seems to sometimes alleviate the stress of feeling like a test (Rohrer, 2012). A potential approach that I would like to incorporate into my teaching is to create a list of sight singing examples for my chorus and have students perform them to earn points or stickers. This could allow me to track data for students over time, monitoring student growth.

In order for our students to continue to grow musically, it would benefit us to work vertically with our partner schools to solidify a common plan for sight singing instruction. These goals should even be expanded across the district so that there is a unified expectation of desired student sight singing abilities. I think it would be a great idea to possibly have elementary choral
students shadow the middle school students for a day and work collaboratively to review these essential skills.

**Application of Assessment to Sight Singing**

I think that by allowing students to assess their peers in music, including during sight singing activities, it may ultimately make students more aware of their own success and enable them to easily identify musical errors in performance. Promoting peer-assessment is a way to provide students with guided listening opportunities (Cassidy, 1993). When students are performing, especially in the upper elementary grades, they need to have a goal in mind and be directed to listen to specific aspects of the musical performance (Cassidy, 1993). In this way, students are able to practice their listening skills as well as gain knowledge from their peers’ performance. As this is taking place, it is also important for the teacher to set guidelines and remind students to treat their classmates with respect.

Upon further analysis of the reviewed literature, I also plan to incorporate more individual sight singing assessments into my classroom. Demorest (1998) found that students who received individual sight singing feedback performed better over time. There may be some students who are unaware of their errors (Demorest, 1998). The individual testing would allow students to receive personalized feedback from the teacher, and perhaps peers, so that the student may make informed decisions about how to improve the performance.

In my school district we use the Marzano method for teaching and learning, with each learning goal accompanied by a specific learning scale. The learning scale is based on a 1-4 rating, with a 4 being the highest proficiency level, and a 1 symbolizing the student still needs much improvement. A level 4 indicates the student goes above and beyond the target learning goal. Table 2 outlines an example of a learning goal with a corresponding learning scale.
Throughout any given lesson we must check-in with students to see where they place themselves on the learning scale. It is important that our ultimate goal is to show growth and for students to be honest with themselves regarding their performance progress (Crochet & Green, 2012). One way to do this would be to have students use sticky notes with their name to place on our exit board before leaving class that day. When assessing sight singing examples, strategies similar to these could be utilized. Students should have clear expectations of what constitutes as a one, two, three or four. These guidelines would be posted on the detailed learning scale. Overall, students may be more likely to succeed if they understand the clearly stated goals and expectations of a lesson, and are held individually accountable for their own music learning (Demorest, 1998).

Table 2

<table>
<thead>
<tr>
<th>Level</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>I can perform the pattern with no mistakes</td>
</tr>
<tr>
<td>3</td>
<td>I can perform the pattern with no mistakes while using Curwen hand signs</td>
</tr>
<tr>
<td>2</td>
<td>I can perform the pattern with help from my teacher, but have mistakes in at least one measure</td>
</tr>
<tr>
<td>1</td>
<td>I am not yet able to perform the pattern accurately and have errors in more than one measure</td>
</tr>
</tbody>
</table>

**Conclusions**

Based on the reviewed literature there are many strategies used to teach sight singing in today’s schools. While no method by itself is sufficient, several researchers found that strategies using kinesthetic motions were beneficial (McClung, 2008). One of the key factors of predicting sight singing success came with experience of the student (Fisher, 2014). Further research may be needed to explore if the experience of the teacher plays a role in students’ sight singing success as well. There may be teachers who are primarily instrumentalists who happen to be
teaching a chorus class and are just unfamiliar with the process. It may be beneficial to further research the level of choral training of teachers, and why or why not they include sight singing in their curriculum.

When determining when and how to introduce sight singing in one’s classroom, teachers should examine the needs of all students, and gather information about students’ musical backgrounds. Most teachers may tend to teach how they were taught, however, sometimes our students may learn differently. The information gathered in this review of literature may be beneficial to teachers, providing them guidance when selecting strategies to use in their own classrooms.

More research may be needed to better understand why boys may have a lower musical self-efficacy in relation to their singing abilities. I find that many of my male students at times lose interest when they reach third or fourth grade. Fisher (2014), found that grade level did not have significant impact on singing participation, however experience was a key factor. There could be other factors that play into this loss of interest as well. I think that peer pressure or fear of embarrassment could be a possibility.

As educators, we must get to know our students and make informed decisions about which strategies will work best for our groups. Upon reviewing the literature for best practices to develop fluent sight singers, I have learned many new strategies, which I will be able to immediately implement into my music program. We must first become comfortable sight singers ourselves, and then proceed to share this knowledge with our students.
References


Jacobi, B. S. (2012). Kodaly, literact and the Brain: Preparing young music students to read pitch


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