

Sight Reading Preparation Strategies: A Comparative Study for Teaching Sight Reading Skills to  
High School Students

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## ABSTRACT

The purpose of this empirical study is to explore the factors that influence a student's ability to perform a sight reading example with accuracy and confidence. The study will include the 9-12th grade students of the South Hunterdon Regional High School Concert Band in Lambertville, NJ, and will take place during the third quarter of the school year (January-March). This study will be comparative, during which the students will be separated into two groups, each of which preparing to perform a sight reading example using different rehearsal techniques. The first rehearsal strategy will include kinesthetic preparation where the students will be clapping rhythms, moving their fingers, and using air patterns. The second rehearsal strategy will ask the students take part in an auditory-learner exercise and are told to only visualize performing the music as they read through the musical example prior to playing. Each student will complete a survey before the study is conducted, which will provide further insight into their personal achievement and confidence level. In addition to the rehearsal study, surveys will be delivered to active high school ensemble music teachers in order to collect data related to sight reading methods and perspective on student risk-taking.

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## **Chapter 1: Introduction**

### **Statement of Purpose**

The purpose of this empirical study is to explore the factors that influence a student's ability to perform a sight reading example with accuracy and confidence. The study will include the 9-12th grade students of the South Hunterdon Regional High School Concert Band in Lambertville, NJ, and will take place during the third quarter of the school year (January-March). This study will be comparative, during which the students will be separated into two groups, each of which preparing to perform a sight reading example using different rehearsal techniques. The first rehearsal strategy will include kinesthetic preparation where the students will be clapping rhythms, moving their fingers, and using air patterns. The second rehearsal strategy will ask the students to only visualize performing the music as they read through the musical example prior to playing. Each student will complete a survey before the study is conducted, which will provide further insight into their personal achievement and confidence level. In addition to the rehearsal study, surveys will be delivered to active high school ensemble music teachers in order to collect data related to sight reading methods and perspective on student risk-taking.

Throughout the study, I expect to find that those students making a physical connection to the music will perform the examples with more confidence and accuracy than that of the students preparing using the auditory-learner method. The benefits of performing this study include developing sight reading proficiency among students, and crafting a meaningful approach to teaching sight reading in the classroom.

### **Rationale**

Sight reading is considered one of the most important skills that a musician can possess. The ability to sight read with proficiency allows students to perform with a higher level of confidence, and play music of increasing difficulties. There are a multitude of procedures a musician can undergo prior to engaging in sight reading including kinesthetic movements (air and move, count and clap, etc.), or visualization exercises (in which the performer uses aural skills to hear the music in their mind prior to playing). In addition to the performance benefits, the practice of sight reading engages students' to activate both creative and analytical skills simultaneously. In my own experiences, while I have often engaged in the practice of sight reading, I can not point to any one prescribed sight reading procedure that has been taught to me in order to better prepare for the activity. The goal of this study is to determine whether the practice of kinesthetic preparation or aural visualization yields more accurate results during sight reading activities. This comparative study will take place during the third quarter of the school year (January-March).

### **Expected Findings**

Over the course of the study, I will be using the results of student sight reading examples, along with the surveyed responses of students and colleagues. In regards to the study itself, I anticipate the sight reading examples performed by those students who partake in active, kinesthetic exercises like sizzle and moving, or counting and clapping, to have a more accurate

performance than those students who only visualize and listen to the the exercise using aural skills.

Following the survey delivered to music educators, who also teach high school instrumental ensembles, I expect the majority of my colleagues to either utilize no official method for preparing to sight read, or use a modified series of kinesthetic exercises to prepare for sight reading.

## **Chapter 2: History and Rationale of Sight Reading Methodologies**

Sight reading is a skill that musicians possess, and one that involves the simultaneous reading of non-rehearsed materials while performing (Herrero and Carriedo, 2019). The nature of music performance is such that musicians of all ability levels are constantly provided with sight reading material as they prepare to perform new music. Similar to the way that a student receives a new book to read after completing the last, musicians are provided with a new piece of music. The main point of contrast is that instead of the words on the page creating contextual, story-building ideas, the musical symbols on the page are seemingly not connected. While one of the most challenging skills, sight reading is also one of the most important for a musician to achieve proficiency. A demonstration of sight reading skills is a testament to the performers musicianship and multitasking skills. According to Harrero and Carriedo,

SR (sight reading) could be considered as a kind of multitasking performance because it requires at least:

(a) the processing of visual information linked to reading, including decoding and understanding the score; (b) the motor control linked to performance, including fine motor control and musicality; and (c) the processing of auditory information linked to the adjustment of performance to the printed material, all in real time (p. 2).

In addition to the already complex process of reading, decoding, and performing the notes and rhythms, musicians must also take into account the “extra-musical” material including time signature, key signature, tempo and style. Each of these elements adds an additional layer of

difficulty to the processing ability of the musician performing the exercise. In particular, variations in the time signature away from the standard 4/4 (common time) that is so often performed in elementary, middle, and high school, can be significant roadblocks for student musicians.

As found in the Harrero and Carriedo study, students had more difficulty performing music in a ternary meter, than a binary meter. There is frequent mention of the importance of eye movements in regards to sight reading performance. Specifically, researchers have attempted to rate a musician's sight reading ability in correlation with how far ahead they are looking in a piece of music. Researchers Pera, Poulin-Charronnat, Bacino, and Draï-Zerbib labeled this skill the “Eye-Hand Span,” or EHS, (Pera et. al, p. 1) in their 2021 publication titled *Review on Eye-Hand Span in Sight Reading of Music*, during which they studied the eye movements of musicians while performing a sight reading example. Performing a piece of music with fluency requires the musician to keep their eyes moving. The eye is thus rarely positioned on the note which is currently being played but instead tends to be further ahead.

In the Pera et. al study, two measurements are taken to determine the EHS:

1) measures of distance which make it possible to evaluate the quantity of information manipulated by musicians between the moment when they fixate a note and the moment they play it. These measures are obtained by measuring the distance between the fixation point and the virtual position of the hand on the score; and 2) latency measures used to evaluate the time during which the information is maintained in working memory. These are obtained by measuring the latency between the moment when a note is fixed (upon) and the moment when it is played.



The researchers provided visual guidelines (seen below in figures 1 and 2) related specifically to music to assist in understanding the concept. While this study is not an example of a pedagogical approach to teaching skills related to sight reading, it is helpful in understanding the mechanics of how a musician's subconscious is working to perform a sight reading example.

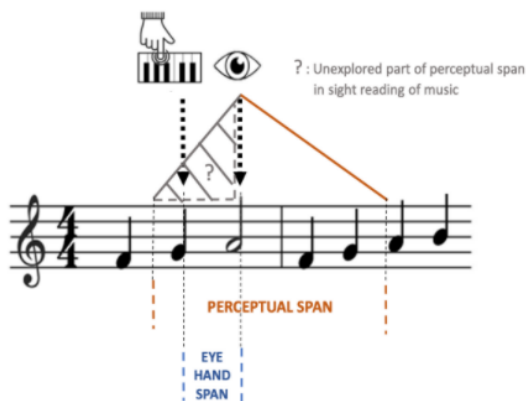


Figure 1. EHS and perceptual span during a sight-reading task

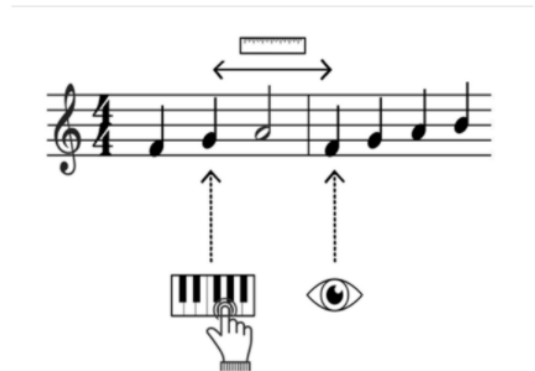


Figure 2. Representation of EHS measured in absolute space

There are many strategies that teachers use to teach sight reading skills to student-musicians. With that said, there is not a clearly defined method for the pedagogical approach to sight reading. As researcher Hodges notes in his 1992 book, *The Acquisition of Music Reading Skills*,

In music there is no theory devoted specifically to an explanation of music reading; thus, the bulk of the research appears to be devoid of a theoretical underpinning. Explicit theories of music reading, theories that would organize knowledge and research about music reading into a system of assumptions, principles, and procedures, do not exist. Such theories would be useful in predicting and explaining the phenomenon of music reading.

Mishra states, “Because of the multitude of variables included in correlational and predictive studies, it is difficult to compare findings and build an understanding of what variables systematically relate to sight-reading” (Mishra 2014, p. 2). Many researchers have attempted studies to determine what factors may indicate a musician's potential success when approaching a sight reading exercise. These factors include technical proficiencies, rhythm reading ability, overall GPA, music theory grades and performance jury grades (Elliot, 1982). In contrast, Daniels (1986) observed various environmental factors that could impact a student's sight reading ability such as the school environment, the music curriculum, the attitudes and experiences of the teachers, and the music background and attitude of the students. According to the study conducted by Mishra in their 2014 publication, some correlations were found between sight reading ability and variables such as musical aptitude, improvisation skills, age, ear training skills...etc, but there was no direct causal relationship.

Through personal experience, I have observed that there are a number of techniques that educators have developed to provide their students with the clearest pathway to success when sight reading. The uniqueness of each teacher's approach to sight reading is a reflection of their own experiences, pedagogical background, class materials, or personal sight reading strategies. Two frequently used techniques found in the rehearsal setting to develop sight reading skills are kinesthetic practice, and guided imagery and visualization paired with auditory aids.

Practice of a musical piece was found to have a positive effect on performance accuracy (Lörch, 2021). Kinesthetic practice involves physical activities such as counting and clapping the rhythm during which the students count the meter aloud while clapping the rhythms on their page. Rhythm air patterns are used to connect the rhythm to the musician's movement air. Air, or “sizzle” and move is a technique in which the students place their hands on their instrument to

simulate playing and move their fingers along with the air pattern. All of the above is done prior to the last step in which the musicians bring the instrument to playing position and perform the example aloud. These techniques create physical connections between the students and the music prior to the performance, which allow them to coordinate their body movements (hands and tongue) with the production of air required to play the instrument.

As students perform these physical activities, they are in turn working to master various techniques that help to develop their input skills (Saxon, 2009). This focus on individual skill and technique building can improve the overall performance of a sight reading excerpt as opposed to performing the entire exercise at first glance (Saxon, 2009). As these skills are progressive in nature, students should take as much time as needed to develop a mastery of each individual skill prior to moving on to the next. Saxon goes into further detail regarding the development of these skills in his 2009 article entitled *The Science of Sight Reading* and points out that students should not move on to the next step prior to mastering the first. In this particular article, Saxon is focusing on keyboard musicians.

1. **Eyes on the Page:** Good sight-readers spent less time looking at the keyboard, which indicates that an important cognitive component of skilled music reading is an ability to form mental spatial representations of the positions of notes on the keyboard and/or an ability to choose optimal finger positions which reduce the need to look at the keyboard in order to find the next note(s).
2. **Count Out-Loud:** A student that can count out loud will have no difficulty in keeping (their) eyes on the page.

3. **Read By Interval:** Place more emphasis on intervals rather than on note names in reading. There is evidence that the eyes do not look directly at each note, but they, instead, look between the notes to measure their intervals.
4. **Do Not Correct Mistakes:** When sight reading, a student should not stop and correct any mistakes. Keeping eyes on the page while counting out loud will go a long way toward accomplishing this goal.
5. **Play the Entire Piece Without Stopping. Never Stop In the Middle of the Piece and Start Over:** Keeping a steady beat and focusing on rhythm and continuity are good sight-reading techniques, as well as good musician-ship skills. When a student plays an entire piece without stopping—whether a sight-reading drill or a recital piece—the student is practicing good sight-reading technique and good musicianship.

### Visualization and Mental Preparedness

There is a significant body of research related to the mental preparation undergone by athletes prior to competition. While these studies do not mention musicians specifically, there are noticeable connections between the preparation and intensity in which both musicians and athletes approach their activity. Regardless of the medium of performance, musicians and athletes are held to the same standard or peak performance. Peak performance is defined as: “quantitatively and/or qualitatively absolutely outstanding action results achieved under regular conditions” (Nitsch and Hackfort, 2016, p. 15). In order to achieve peak performance, athletes often exercise their visualization skills away from the playing field, and in doing so, frequently find more success in biological outcomes during performance (Newmark, 2012).

According to McDuff, visualization involves imagining the performance of a task, resulting in a positive outcome. One can easily draw the connection between the tasks that an athlete may visualize, and that of the instrumental musician. McDuff goes on to reference a functional MRI research study in which participants underwent a visualization exercise. During this exercise, it was clear to the researchers that while visualizing a particular task, the participant's brain scan shifted from highlighting the left side of the brain, which is responsible for analytical processing, to the right side of the brain which focuses on creative processing. Musicians may benefit more than others since the music itself relies heavily on the musician's ability to express themselves creatively while performing.

Additional research has been done focusing on the various states of mind that athletes or performers can work to achieve, which yield the best results. According to sports psychologists, Spencer, there are three parts to the subconscious mind: The Unconscious, the Exconscious, and the Preconscious (Spencer, 2016). Specifically, Spencer points out that the preconscious mind, which stores memories that you can recall easily but are outside of your immediate awareness, plays the most significant role in performance ability (Spencer, 2016). Spencer goes on to explain that,

When the preconscious mind is clearer, productivity increases, focus becomes sharper, and your energy level is heightened. Your mood tends to be more consistent and more positive. Time management improves and your interpersonal skills are strengthened Spencer, p. 31-32, 2016).

There is little research regarding the use of auditory aides, or listening to the exercise prior to playing, specifically related to sight reading. In this scenario, students would be viewing the piece of music in front of them, and following along with the notes and rhythms as they listen to the exercise. At this moment, students would be entering into what composer and author, Aaron Copland calls, “The Sheerly Musical Plane” (Copland, 1939 p. 12). The sheerly musical plane is described as focusing on the manipulation of the notes and rhythms themselves. (p. 12). According to Copeland,

The intelligent listener must be prepared to increase his awareness of the musical material and what happens to it. He must hear the melodies, the rhythms, the harmonies, the tone colors in a more conscious fashion (p. 13).

Regardless of the pedagogical technique, it is important to note that in order for sight reading exercises to be effective resources for educational and musical development, they must be comparable to the performance ability of the students. Sight reading techniques will not develop if the music is too difficult and students will lose confidence in their abilities (Saxon, 2009). Likewise, if there is little to no challenge presented by the example, students will not have the opportunity to develop their sight reading skills to later perform more challenging exercises. Multiple factors should be taken into consideration when selecting a sight reading exercise. These factors include the age of the players, ability level of the ensemble, and the difficulty level of the repertoire currently played in class. While it is important to present challenges to students, it is imperative that these challenges not exceed their ability level. The successes, or failures, of

students can have an immediate and lasting impact on their motivation to complete similar exercises in the future.

In order to determine the accuracy of a sight reading example, a process for adjudication must be established. Music, in some ways unique to other courses, involves a subjective and objective component when grading and evaluating a performance. In order to accurately measure the performance of a sight reading example, it is necessary to establish a balance between the subjective and objective grading criteria. Objective grading focuses on the counting of errors. These errors can be counted by comparing the recorded material or live performance, to the original source material, in this case a piece of sheet music (Lörch, 2021). While this measure does yield accurate results, it does not encompass all of the musical concepts being addressed by the performer during the excerpt. Lörch also identifies an alternative grading method which is more subjective in nature. This practice utilizes expert ratings during which accomplished musicians listen to the excerpt and grade based on a rubric. In addition to pitch and rhythm, this rubric also measures the accuracy of style, dynamics, tone, and articulation.

In this research study, participants will be graded on a primarily objective rubric in which the students will be scored on accuracy of pitch, rhythm, and articulation. Additional points will be added to the performer's total points if dynamics and phrasing are demonstrated. A primarily objective approach is being used for this study to highlight the way in which students prioritize their observations when preparing to perform.

### **Chapter 3: Results and Findings**

#### **Student-Musician Survey**

The following survey was delivered to the student-musicians, all of whom participated in the sight reading study. This survey was given to the students prior to the beginning of the sight reading study. The survey was delivered to two different classes (Class A and Class B) on February, 3rd, 2022 and February 4th, 2022 respectively. The survey was completed by the students during class.



## Kinesthetic Vs. Auditory Learner Survey

Please complete this form in as much detail as possible.

This form is automatically collecting emails for South Hunterdon Regional School District users. [Change settings](#)

Grade Level \*

- ☐ 9
- ☐ 10
- ☐ 11
- ☐ 12

How Many Years Have You Been Playing Your Instrument? \*

- ☐ 1-2 Years
- ☐ 3-4 Years
- ☐ 5-6 Years
- ☐ 7 or More Years

Instrument \*

- ☐ Flute
- ☐ Oboe
- ☐ Clarinet
- ☐ Saxophone (Alto, Tenor, Baritone)
- ☐ Trumpet
- ☐ Trombone
- ☐ Baritone
- ☐ Percussion

What clubs or activities do you participate in outside of the school day? Please list. If none, please respond "N/A" \*

Long answer text

Based on our class discussion regarding learning types, what type of learner do you most identify with? \*

- ☐ Kinesthetic (Actively engaged, trial and error, movement, tactile)
- ☐ Auditory (Learn by listening, remember things you are told, read aloud or "talk through" problems in order t...

What type of music performed in class is the most engaging or interesting to you? \*

- ☐ Slow, Soft, Smooth, and Lyrical
- ☐ Fast-Paced, Technically Challenging, Loud or Strong

What is your immediate feeling when a sight reading example is handed out? \*

	Very Excited	Somewhat Exci...	Indifferent	Somewhat Anxi...	Very Anxious
Feeling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

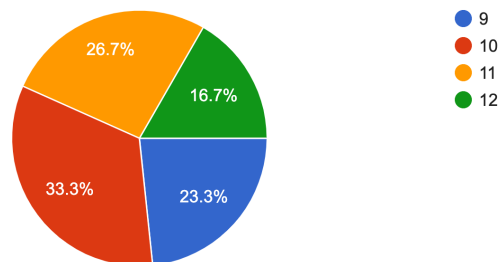
When you are met with a challenging selection of music, what is your immediate reaction? \*

Short answer text

### Student Survey Responses

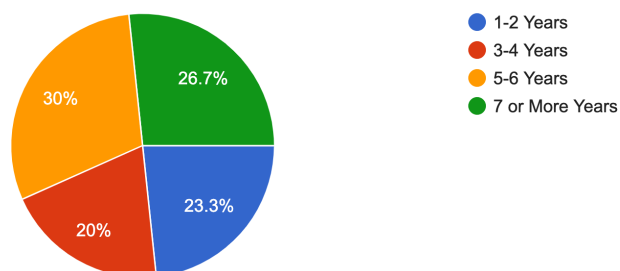
There were a total of 30 responses from the student-musicians participating in the study. There were seven students in the 9th grade, ten students in the 10th grade, eight students in the 11th grade, and 5 students in the 12th grade.

Grade Level  
30 responses



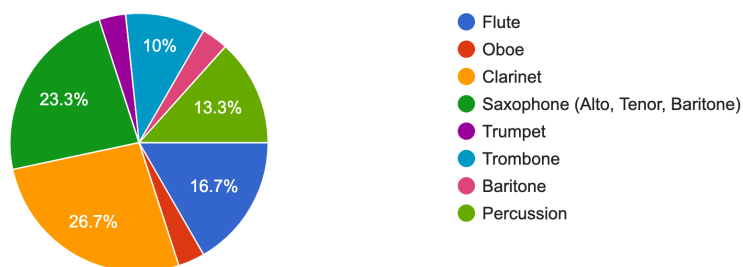
Of those students surveyed, the majority (nine students) have been playing their instrument for 5-6 years. Eight students have been playing for more than seven years, six students for 3-4 years, and a large percentage (seven students) have only been playing for 1-2 years.

How Many Years Have You Been Playing Your Instrument?  
30 responses



The instrumentation across the ensembles is fairly well balanced with the majority of students (eight students) playing the clarinet, followed by seven students playing the saxophone. The least amount of students play oboe, baritone and trumpet (1 student per instrument group).

Instrument  
30 responses



When asked what clubs or activities the students are involved in outside of school, the responses included a variety of activities both involving music, and outside of the field of music. 19 of the 30 students surveyed participate in a sport, or indicated exercise as a part of their after school activities. Nine of the 30 students surveyed were involved in dance or musical theater activities in addition to their participation in band class. The students were asked these questions in order to collect data on whether the students were involved in more physically active, or academic focused activities outside of school.

**What clubs or activities do you participate in outside of the school day? Please list. If none, please respond "N/A"**

Yarn club, environmental club

Track , School Musical , Vocal Ensemble, Jazz Band , Marching Band, and dance

ESports, D&D, Katate, Fife & Drum corps

Yarn club, soccer

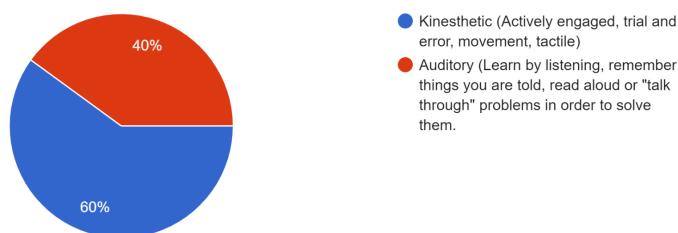
In a band, write, record, produce music. Work at a juice, smoothie, sandwich place. Marching band 7-11 grade playing percussion (bass drum & snare)

I'm in the musical, vocal ensemble, and jazz band.
Basketball, Working out, and Video games
Jazz Band, Musical, Bowling, Soccer, Marching Band,
Junior Firefighter Lambertville Emt lambertville Emt Flemington Jazz band Marching band Bowling
Football, Wrestling, Junior Firefighter, Baseball, Soccer
n/a
Bowling, Tennis, Yarn Club, Musical, Jobs, Marching Band
Jazz band, musical, cheerleading, marching band and vocal ensemble
Jazz band, church band, church group, exercising, dieting, and library squad
Track, soccer, peer leadership, nhs, snowboarding club, basketball
Marching Band, Jazz Band, Yarn Club, Art Club, Work, Environmental Club, French Lessons
Track, football, bowling, jazz band
Track Soccer Wrestling Jazz band MMA MArching band reading weightlifting
Playing the piano for sunday school for the kids, and in the hand bell chior
Musical Theatre (both with the school and a different organization), Marching Band, Dance Classes.
Basketball
School soccer team, Club soccer team, going to the gym, boy scouts
Jazz band, Marching band, Wrestling, Rowing
Jazz Band, theatre, marching band, vocal ensemble, yarn club,
Soccer, Piano lessons, Guitar lessons.

N/A
Musical Theatre
Work, writing music, writing literature, reading, marching band, jazz band, playing piano/saxophone, virtual discussions of music with professor.
IEA, Tap dancing, Musical Theater, Volunteering, Ballet
Softball, Field Hockey, Marching Band,

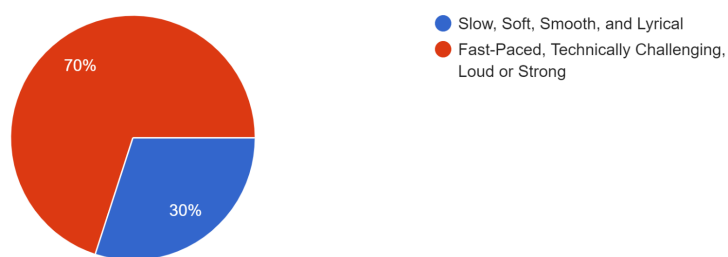
Prior to delivering the survey, the class participated in a lecture and discussion surrounding the concept of Kinesthetic and Auditory learners. During the survey, the students were asked to indicate which of those two learning styles they identified with the most. Twelve students identified themselves as auditory learners, while 18 students identified themselves as kinesthetic learners.

Based on our class discussion regarding learning types, what type of learner do you most identify with?  
30 responses



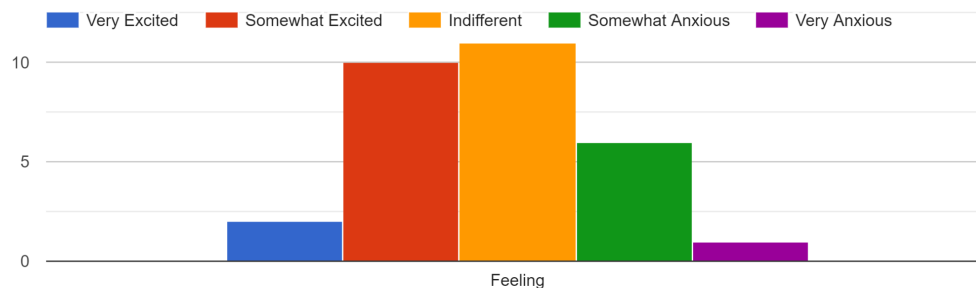
The students were then asked to indicate the type of music they most enjoyed listening to and performing in class. The purpose of this question was to determine whether there was a correlation between the style of music being performed and the learning style of the student performing the music. Only 9 students preferred performing slow, soft, smooth and lyrical music, while the remaining 21 students indicated a preference for fast-paced, technically challenging, loud, or strong sounding music.

What type of music performed in class is the most engaging or interesting to you?  
30 responses



In order to gauge the students' enthusiasm toward performing sight reading exercises, they were asked to indicate their immediate feeling when a sight reading example is handed out to them. Two students felt very excited, 10 students felt somewhat excited, 11 students were indifferent about the exercise, 6 students felt somewhat anxious, and 1 student felt very anxious to perform the exercise.

What is your immediate feeling when a sight reading example is handed out?





The final question on the survey asked the students to identify their immediate reaction when they are met with a challenging selection within a given piece of music. This question was designed to elicit a response from the students that forced them to think introspectively, and reflect on their own rehearsal and performance experiences.

set a goal to help me get better
" when I learn this , it's going to be so fun"
Put it down and come back at a later point
I have to practice, I need to get better.
Try and play through it a bunch of times at regular speed, then slow it down and try to get it right and then get it up to speed.
Try for a little bit and than if I can't get it right there, than try and figure it out later
The rhythm of the eighth and sixteenth notes.
Scared, but I usually like it in the end.
I get kinda frustrated until I have worked through it enough to be at a level where i can play it
Read through the piece and try to remember similar rhythms that I have played.
excitement. curiosity.
Look at key signature and time signature and begin to pretend play like go over the notes with my hand
I like to trial and error. Sometimes I get frustrated but I always want to be better and look forward to being better.
My immediate reaction is determination.
I get frustrated
It depends on the challenge. With fast and tactile stuff it's exciting to learn with repetition, but with air support it's a little overwhelming.
Try to move through it and get the rhythms
My immediate reaction is: Wow this seems challenging
At first reaction, I might cringe and then charge at it.
It looks like it will be difficult but with practice I can get through it and work on it. I don't want people to hear me mess it up though so that makes me anxious.
Ask mr stephens
find the hardest parts and try them out
My reaction is to see what the notes are and move my fingers or play through them.
I don't want anyone to look at me weird when I mess up or play the wrong thing

I am somewhat excited, but since I can not figure out a piece of music on my own I would have to listen to the piece or follow peers.
I look at the person sitting next to me so that I can see how they're playing it.
I try to look over the music for things that look familiar.
Play it slowly, get all the rhythms down, try to hum it, try to play it. If I have a piano I definitely will use that to determine what it will sound like. Find a recording and try to play along, isolate the section.
Excitement and intrigue, because I know the section will be a lot of fun to perform once I get it.
My reaction is usually a little anxious if I'm honest. As much as I am a person who likes challenges, I also don't like the feeling of failure. So if I know something is going to be hard I don't always go right into it. I try to practice until I feel more confident in how I play/do it.

### Teacher/Colleague Survey

The following survey was delivered to 9-12th grade instrumental ensemble teachers via social media and email communication. There were seven responses. The goal of this survey was to determine if instrumental educators followed similar strategies for sight reading preparation, and to collect new pedagogical practices.

## Sight Reading Process and Procedures

Thank you for taking the time to complete this survey. In as much detail as possible, please answer the questions below in regards to sight reading activities in your classroom. This survey should take approximately 5-10 minutes to complete. \*Please only take this survey if you teach an instrumental ensemble course made up of students in 9-12th grade.

State You Teach In



If you teach outside of the United States, please indicate the country in which you teach.

Short answer text

Highest Level of Education Earned \*

- ☐ Bachelor's Degree
- ☐ Master's Degree
- ☐ PHD/DMD/EdD

Instructional Role (Check all that Apply) \*

- ☐ Public School Teacher 9-12
- ☐ Private School Teacher
- ☐ Private Lesson Teacher
- ☐ Higher Education Teacher

Grade Level(s) Taught \*

- ☐ 9
- ☐ 10
- ☐ 11
- ☐ 12

What Ensemble(s) Do You Teach? (Check all that apply) \*

☐ Band

☐ Marching Band

☐ Jazz Band

☐ Orchestra

☐ Chamber Orchestra (Select Group)

☐ Pit Orchestra

How do your students react when they are given a piece of music to sight read? \*

Very Eager or E...   Somewhat Eag...   Indifferent   Some Hesitancy   Very Hesitant

Student Reaction   ☐   ☐   ☐   ☐   ☐

How likely are your students to participate in an activity that will be a challenge for them to succeed in on their first attempt? \*

They Will Absol...   They Will Most ...   At Least Half W...   Some Will Parti...   None Will Parti...

Likelihood to Pa...   ☐   ☐   ☐   ☐   ☐

Frequency of Sight Reading: On an average weekly basis, how frequently do you provide Sight Reading materials to your students? \*

☐ 1 time per week

☐ 2-4 times per week

☐ 5 times per week (daily)

What resource do you typically use as sight reading material? \*

- ☐ Method Book Exercises
- ☐ Sight Reading Factory (or similar web based resource)
- ☐ Repertoire
- ☐ Other...

...

What rehearsal strategies do you typically use to prepare your students to sight read? \*

- ☐ Count and clap the rhythm.
- ☐ Sizzle (Air) the rhythm.
- ☐ Count and Air Bow
- ☐ Air Bow and Move Fingers
- ☐ Sizzle (Air) the rhythm and move fingers.
- ☐ Identify sequences, patterns and repetition.
- ☐ Identify or provide the tempo to students prior to beginning the exercise.
- ☐ Listen to the musical example prior to performing.
- ☐ Other...

...

Which of the rehearsal strategies listed below yields the best results for your ensemble when participating in a sight reading activity? \*

- ☐ Count and clap the rhythm.
- ☐ Sizzle (Air) the rhythm.
- ☐ Sizzle (Air) the rhythm and move fingers.
- ☐ Identify sequences, patterns and repetition.
- ☐ Identify or provide the tempo to students prior to beginning the exercise.
- ☐ Listen to the musical example prior to performing.
- ☐ Other...

Prior to sight reading, do you play a recording for your students of the piece of music or musical example? \*

- ☐ Yes
- ☐ No
- ☐ Sometimes

If you answered "Yes" or "Sometimes" to the question above, do your students have the music in front of them while they are listening?

- ☐ Yes
- ☐ No

What do you instruct your students to do during the listening process? (Check all that apply)

- ☐ Move their fingers along with the music
- ☐ Sizzle (air) and move their fingers along with the music.
- ☐ Make pencil markings in the music.
- ☐ Focus on listening and following your part from start to finish.

In your own words, what characterizes a successful sight reading performance? \*

Long answer text

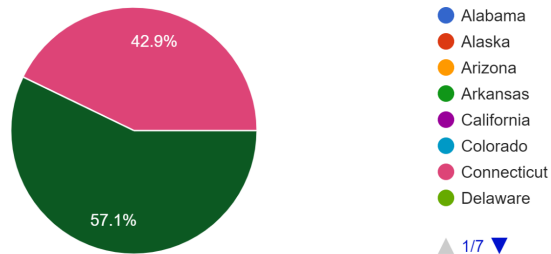
Do you have a sight reading process that you utilize with your students not mentioned during this survey? If yes, please describe.

Long answer text

Teacher/Colleague Survey Responses

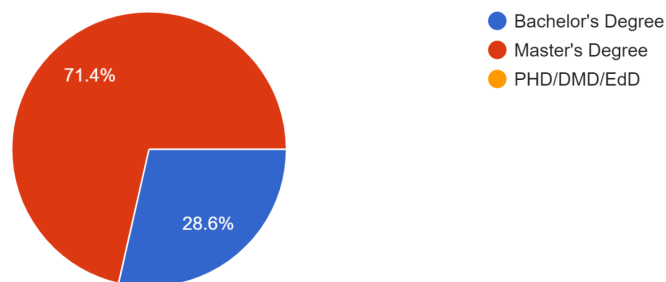
Of the seven respondents, four individuals teach in New Jersey, and three individuals teach in Pennsylvania.

State You Teach In  
7 responses



Of the seven respondents, five individuals hold their Master's Degree, while two individuals have a Bachelor's Degree.

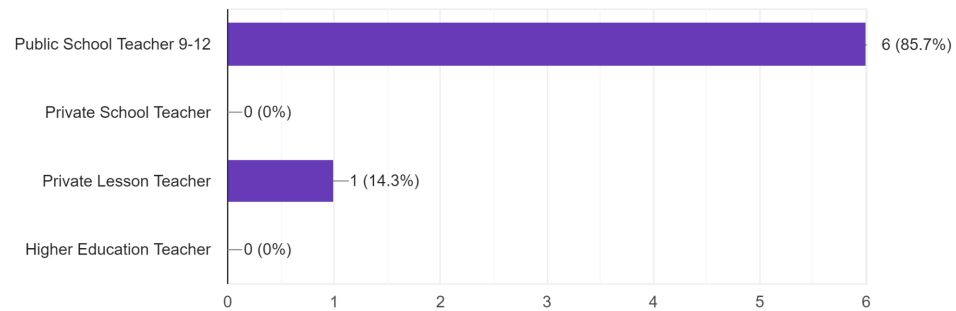
Highest Level of Education Earned  
7 responses



The graphs below reflect the instructional role of the survey participants, and the grade level(s) that they teach.

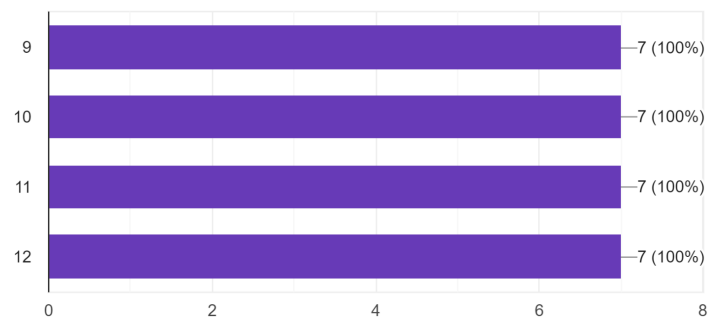
Instructional Role (Check all that Apply)

7 responses



Grade Level(s) Taught

7 responses

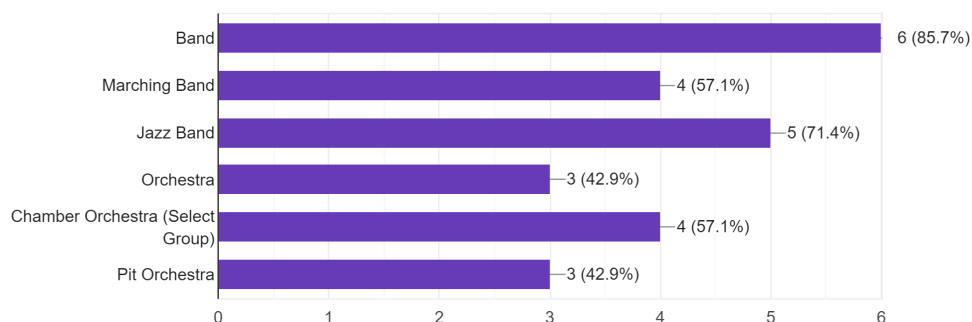




The majority of respondents (six) teach in the public school system. All respondents teach 9-12th grade students. The collective group teaches a variety of ensembles within their instrumental music programs.

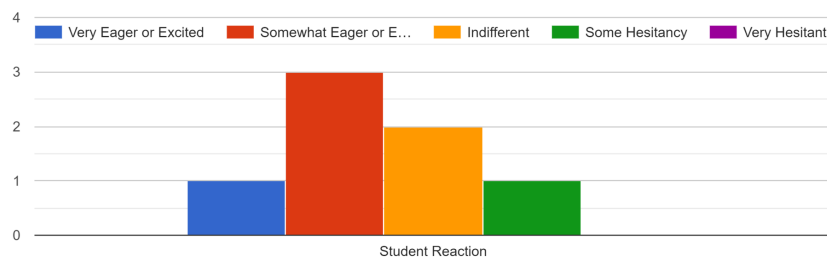
What Ensemble(s) Do You Teach? (Check all that apply)

7 responses



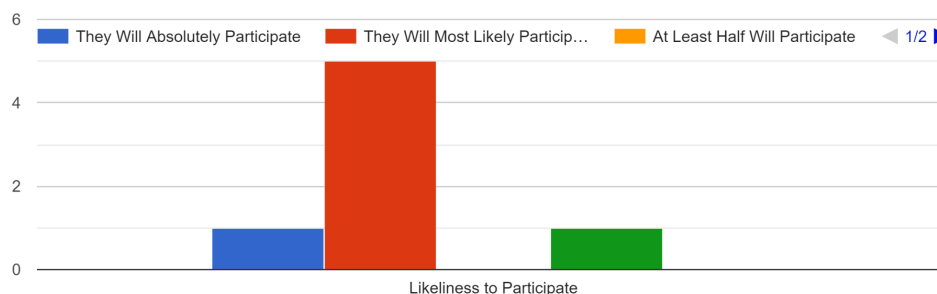
Of the responses collected, one indicated that their students were very eager or excited to perform a sight reading example, three said that their students were somewhat eager or excited, two said that their students were indifferent to the sight reading example, and one indicated that their students were very hesitant to perform a sight reading example.

How do your students react when they are given a piece of music to sight read?



A majority of the responses (five) to the question above indicated students would most likely participate in an activity that will be challenging for them to be successful in their first attempt. One respondent indicated that their students would absolutely participate, and one indicated that only some students would participate.

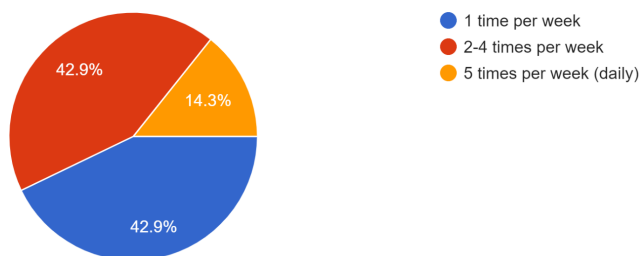
How likely are your students to participate in an activity that will be a challenge for them to succeed in on their first attempt?



Of the responses collected, three indicated they provide sight reading materials to their students one time per week, and 2-4 times per week respectively. One respondent indicated that they sight read on a daily basis with their students.

Frequency of Sight Reading: On an average weekly basis, how frequently do you provide Sight Reading materials to your students?

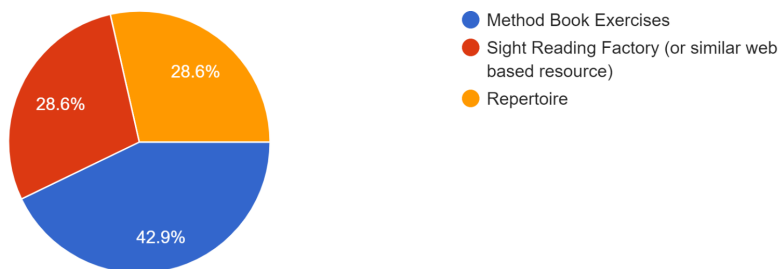
7 responses



To facilitate the sight reading experiences above, three respondents utilize method books, two respondents use Sight Reading Factory (or similar web based resource), and two respondents utilize their repertoire.

What resource do you typically use as sight reading material?

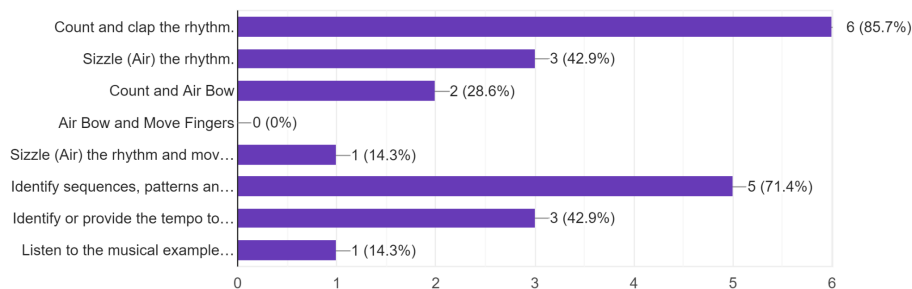
7 responses



Below represents a breakdown of the various strategies used to prepare students for a sight reading example.

What rehearsal strategies do you typically use to prepare your students to sight read?

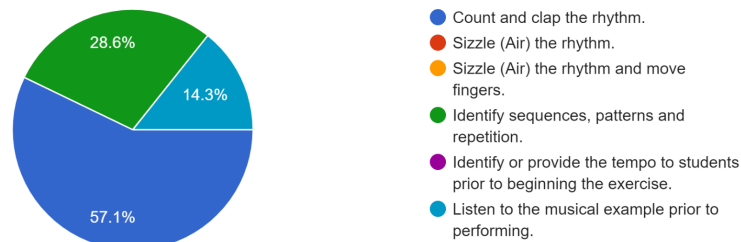
7 responses



When asked which of the rehearsal strategies listed above yielded the best results for the respondents students, four selected ‘count and clap the rhythm,’ two selected ‘identify sequences, patterns and repetition,’ and one selected ‘listen to the musical example prior to performing.’

Which of the rehearsal strategies listed below yields the best results for your ensemble when participating in a sight reading activity?

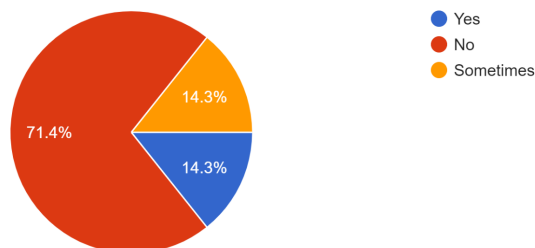
7 responses



Prior to sight reading, the majority of respondents (five) indicated that they do not play a recording for their students, one individual indicated ‘Yes,’ and one individual indicated ‘Sometimes.’

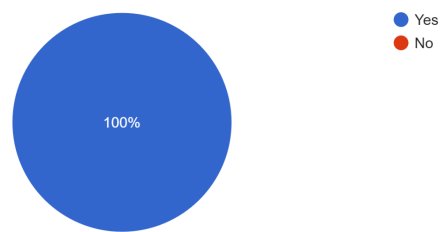
Prior to sight reading, do you play a recording for your students of the piece of music or musical example?

7 responses



If you answered "Yes" or "Sometimes" to the question above, do your students have the music in front of them while they are listening?

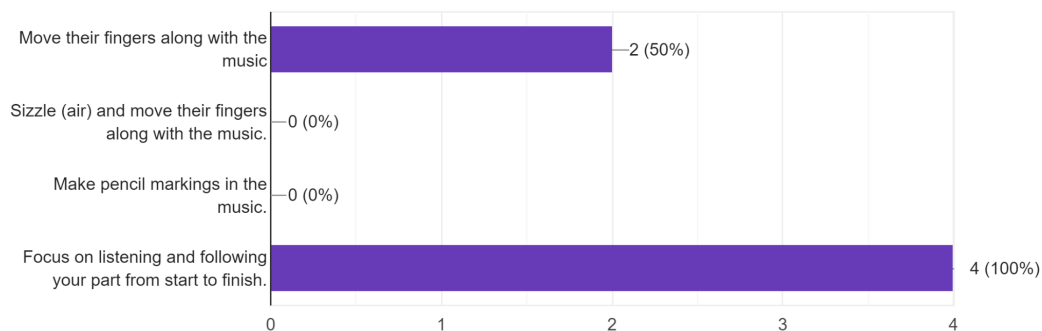
3 responses



Of those who indicated 'Yes' or 'Sometimes,' two respondents instructed their students to move their fingers along with the music, while four respondents instructed their students to focus on listening and following your part from start to finish.

What do you instruct your students to do during the listening process? (Check all that apply)

4 responses



In your own words, what characterizes a successful sight reading performance?

7 responses

Maintaining awareness of pulse and rhythm from start to finish. Starting together and ending together, and playing most of the correct rhythms along the way. To me, correct pitches have very little bearing on if I consider a sight reading performance successful.

For an ensemble: remaining together in the right place at the right time. For an individual, performing alone: applying as many notations correctly as possible, facilitated by choosing an appropriate tempo

Survival

60-80% of the piece is close to correct

Being able to follow along (not get lost), being able to recognize patterns (rhythmic and tonal), steady pulse

Rhythmic accuracy and everyone starting and stopping together

To give the students the ability to be able to make a reasonable performance at the first session.

Do you have a sight reading process that you utilize with your students not mentioned during this survey? If yes, please describe.

2 responses

I will often include playing a passage on a drone of a single note, further emphasizing the importance that the rhythm and pulse have on a proper performance. Many times I will do this in place of a sizzle.

No

### Assessment Results

The students taking part in the study were divided into two groups. Group A students were all in the same class, and Group B students were in a different class. The students in Group A followed a kinesthetic-learner preparation method, while the Group B students followed an auditory-learner preparation method.

The students in Group A were presented with sight reading examples and a prescribed method for preparing to play. Each of the following were performed two times:

1. Count and Clap the Rhythm
2. Sizzle the Rhythm
3. Sizzle and move on instrument

The students in Group B were presented with sight reading examples and were asked to keep their instrument down and out of their hands. The students were then played a recording of the exercise two times, during which the students were permitted to follow along in the music with their eyes. The students were then instructed to pick up their instruments and play the example as a group.

At the conclusion of each preparation method, the students played the sight reading example only one time. During their performance, the students recorded themselves playing using their phones or chromebooks. Those recordings were then uploaded to Google Classroom. Following the performance and recording, the students participated in a verbal classroom discussion, reflecting on the experience.

### Reporting Student Data

Thirty-one students participated in the study, separated into two groups. Group A consisted of 15 students and Group consisted of 16 students. Both groups contained a diverse group of students, in grades 9-12, with varying levels of instrumental music experience. The students were adjudicated using the rubric below:

Criteria	5-Advancing	4-Developing	3-Beginning	2-Rudimentary	1-Insufficient	0-Did Not Attempt
<b>Rhythmic Accuracy</b> Accuracy of the performed rhythms in relationship to the printed notation.	Rhythm is performed perfectly with no detectable errors.	Rhythm is performed with 1-2 mistakes, but the mistakes do not detract from the overall performance.	Rhythm is performed with 3-4 mistakes. The mistakes are noticeable, but the musician is able to continue through the exercise.	Rhythm is performed with more than 4 mistakes. The mistakes are noticeable, and the performer struggles to complete the exercise.	The rhythm is indiscernable by the adjudicator. The notes are seemingly played at random.	Did not attempt.
<b>Steady Pulse</b> Sense of pulse, regardless of rhythmic accuracy, is consistent from beat to beat.	Pulse is present throughout the entire exercise, and all rhythms are performed in relationship to that pulse.	Pulse is consistent with only minor deviations by the performer.	Pulse is inconsistent, but the rhythms are occasionally related to the pulse.	Pulse is very inconsistent and is only present for brief moments throughout the exercise.	No perceivable pulse.	Did not attempt.
<b>Pitch Accuracy</b> Accuracy of pitches in relationship to the printed notation.	Pitches are performed perfectly with no detectable errors.	Pitches are performed with 1-2 mistakes, but the mistakes do not detract from the overall performance.	Pitches are performed with 3-4 mistakes. The mistakes are noticeable, but the musician is able to continue through the exercise.	Pitches are performed with more than 4 mistakes. The mistakes are noticeable, and the performer struggles to complete the exercise.	The intended pitches are indiscernable by the adjudicator. The notes are seemingly played at random.	Did not attempt.
<b>Articulation</b> Accuracy of articulations performed (measured by the attack and release) in relationship to the printed notation.	All articulations (attacks and releases) are performed throughout the exercise with consistency, and in relationship to one another.	Mostly all articulations (attacks and releases) are evident in the performance.	Some attention is paid to articulations (attacks and releases) by the performer.	Most articulations (attacks and releases) are indiscernable by the adjudicator.	All articulations (attacks and releases) are ambiguous and indiscernable by the adjudicator.	Did not attempt.
<b>Dynamics</b> Dynamic contrast performed, based on markings dynamic markings in the printed music.	Dynamics are played musically, to their fullest extent, and appropriate to the piece of music.	Dynamics are performed consistently, but with a limited range.	Some dynamic contrast is evident in the performance.	Little attention is paid to dynamic contrast with only some evident contrast in volume.	No dynamic contrast is present.	Did not attempt.



The rubrics were filled out by highlighting the box of the students corresponding score, based on the audio recording of their performance. Example below:

Criteria	5-Advancing	4-Developing	3-Beginning	2-Rudimentary	1-Insufficient	0-Did Not Attempt
<b>Rhythmic Accuracy</b> Accuracy of the performed rhythms in relationship to the printed notation.	Rhythm is performed perfectly with no detectable errors.	Rhythm is performed with 1-2 mistakes, but the mistakes do not detract from the overall performance.	Rhythm is performed with 3-4 mistakes. The mistakes are noticeable, but the musician is able to continue through the exercise.	Rhythm is performed with more than 4 mistakes. The mistakes are noticeable, and the performer struggles to complete the exercise.	The rhythm is indiscernable by the adjudicator. The notes are seemingly played at random.	Did not attempt.
<b>Steady Pulse</b> Sense of pulse, regardless of rhythmic accuracy, is consistent from beat to beat.	Pulse is present throughout the entire exercise, and all rhythms are performed in relationship to that pulse.	Pulse is consistent with only minor deviations by the performer.	Pulse is inconsistent, but the rhythms are occasionally related to the pulse.	Pulse is very inconsistent and is only present for brief moments throughout the exercise.	No perceivable pulse.	Did not attempt.
<b>Pitch Accuracy</b> Accuracy of pitches in relationship to the printed notation.	Pitches are performed perfectly with no detectable errors.	Pitches are performed with 1-2 mistakes, but the mistakes do not detract from the overall performance.	Pitches are performed with 3-4 mistakes. The mistakes are noticeable, but the musician is able to continue through the exercise.	Pitches are performed with more than 4 mistakes. The mistakes are noticeable, and the performer struggles to complete the exercise.	The intended pitches are indiscernable by the adjudicator. The notes are seemingly played at random.	Did not attempt.
<b>Articulation</b> Accuracy of articulations performed (measured by the attack and release) in relationship to the printed notation.	All articulations (attacks and releases) are performed throughout the exercise with consistency, and in relationship to one another.	Mostly all articulations (attacks and releases) are evident in the performance.	Some attention is paid to articulations (attacks and releases) by the performer.	Most articulations (attacks and releases) are indiscernable by the adjudicator.	All articulations (attacks and releases) are ambiguous and indiscernable by the adjudicator.	Did not attempt.
<b>Dynamics</b> Dynamic contrast performed, based on markings dynamic markings in the printed music.	Dynamics are played musically, to their fullest extent, and appropriate to the piece of music.	Dynamics are performed consistently, but with a limited range.	Some dynamic contrast is evident in the performance.	Little attention is paid to dynamic contrast with only some evident contrast in volume.	No dynamic contrast is present.	Did not attempt.

The scores corresponding to the highlighted boxes were then tallied and averaged for each category and for the total score of each student.

### Group A Average Scores

Student	Average Rhythm	Average Pulse	Average Pitch	Average Articulation	Average Dynamics	Average Total
Student 1	3.3	3.66	4	3	3	16.96
Student 2	2.66	2.66	3	2.66	2.66	13.64
Student 3	4.66	4.66	3.66	3.66	3.33	19.97
Student 4	3.33	3.33	3	2.66	2	14.32
Student 5	4.66	4.66	4	3.33	2.33	18.98
Student 6	3.33	3	2.33	2.33	2.33	13.32
Student 7	3	3	3.33	2.33	1.66	13.32
Student 8	2.33	2.66	2	2	1.66	10.65
Student 9	4.33	4	3.66	2.66	2.33	16.98
Student 10	4	4	4	3	2.33	17.33
Student 11	3.66	4	4.33	3	3	17.99
Student 12	3.66	4	3.66	3	2.33	16.65
Student 13	2.66	2.33	2	2	1.33	10.32
Student 14	4.33	4	4.33	3.66	3.33	19.65
Student 15	3.66	4	4	3	2.33	16.99
<b>Averages</b>	<b>3.57</b>	<b>3.60</b>	<b>3.42</b>	<b>2.82</b>	<b>2.40</b>	<b>15.80</b>

**Group B Average Scores**

<b>Student</b>	<b>Average Rhythm</b>	<b>Average Pulse</b>	<b>Average Pitch</b>	<b>Average Articulation</b>	<b>Average Dynamics</b>	<b>Student Total Score</b>
Student 1	2.66	2.66	2.66	3	3.33	14.31
Student 2	3.66	3	2.66	2.66	3	14.98
Student 3	4	4	4	3.33	4	19.33
Student 4	3.33	3	3	2.66	3.33	15.32
Student 5	3.66	3.66	3.66	3.66	3.66	18.3
Student 6	4.33	4.66	4.33	3.33	4.33	20.98
Student 7	2	1.33	2	2.33	2	9.66
Student 8	3.33	3.33	3.33	3	3.33	16.32
Student 9	3.33	3.66	3.33	3	3.33	16.65
Student 10	4.33	4.33	3.66	3.33	4	19.65
Student 11	5	5	4.66	4.33	4	22.99
Student 12	3	2.66	3.33	2.33	3	14.32
Student 13	4.66	4.33	4.33	4	4	21.32
Student 14	4.33	4.33	4.33	4	4	20.99
Student 15	4.33	4.33	4	3.66	4	20.32
Student 16	3.33	3	3.33	3	3.33	15.99
<b>Category Averages</b>	<b>3.71</b>	<b>3.58</b>	<b>3.54</b>	<b>3.23</b>	<b>3.54</b>	<b>17.59</b>

When comparing the two sets of data it is clear that Group B scored higher in most categories (with the exception of *pulse*). In addition, the students in Group B scored significantly higher in the *articulation* category (.41 increase) and the *dynamics* category (1.14 increase).

### **Chapter 4: Conclusion**

The goal of this action-based research study was to compare which method of sight reading preparation yielded the best results amongst students musicians. The two models focused on either kinesthetic preparation (involving clapping and counting, sizzling the rhythm, sizzling and moving on their instruments, and performing), or auditory preparation (listening to the example played aloud while following along in their music).

In Chapter 1, the students who participated in the kinesthetic-learner preparation were predicted to perform with more accuracy. After the delivery of the study, the data shows that the students who participated in the auditory-learner preparation method scored higher than the kinesthetic preparation group in the following categories: Rhythm (.14 increase), Pitch (.12 increase), Articulation (.41 increase), and Dynamics (1.14 increase). The dramatic increase between the Group A and Group B dynamics is interesting to note and can be attributed directly to the students being able to hear the example played aloud prior to performing.

In reflecting on the study, and after discussing with colleagues in the field, I have been left with one significant question: “Can an exercise be considered ‘true sight-reading’ if the students are permitted to prepare for the performance while looking at the example prior to performing?” This study best represents the typical instrumental music ensemble, where the performers are at varying ability and grade levels. Arguments could be made that there is a connection between the auditory-learner model (Group B) and simply ‘Rote Teaching.’ While there are certainly connections between these two methodologies, the students in Group B were following along in the music while listening to the example, thus making connections between what they were seeing and hearing. It was then up to the students to replicate the intricacies of the example through their performance.

There are still different preparation methods and questions that could be answered further. Since there was a significant increase in performance from those students who participated in the auditory-learner model, the suggestion could be made to instrumental music educators to utilize quality modeling or recordings in their classrooms.

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