

# Supporting Music Skill Development with Data Collection



by Mo Foster

In my experience, one of the most challenging teaching practices to replicate with authenticity in the elementary fine arts classroom is data collection and analysis. As an elementary music teacher, it can be daunting to find time to observe, record data, and look for patterns with 300–900 students. That said, I will attest that it’s worth it.

My students’ skill levels rocketed after I was able to diagnose gaps in their performance (and in my instruction). I learned how to elevate so many students to the next tier of learning by observing trends in student skill level and by adjusting my instruction and rehearsal plans in response to those trends. I am also able to have authentic and meaningful conversations with administrators regarding student growth, thus allowing me to advocate for my students and my subject. But how does one even get started? You might be assuming that it’s a lot of extra work when your teaching plate is already overflowing.

For the moment, don’t stress. While I’m not going to say it’s easy or fast, I suspect it might be easier and faster than you’re imagining. Utilizing some tools and staying as organized as possible, I collect data and use it to improve student outcomes through thoughtful data analysis and planning. I invite you to learn more about my process and consider how you might implement it in your classrooms.

## Rubrics

Rubrics are the key to collecting data in a performance-based classroom like music (or theater, dance, etc.). By making a rubric for the skill you want to assess, and staying consistent to that rubric, it’s simpler to give students a score quickly while you’re assessing.

When I first used rubrics, I defined levels of proficiency and assigned scoring values to them similar to the following example from a singing rubric:

**Criteria:** Demonstrate accurate pitch, rhythm, and intonation when singing:

- **Advanced, 4 points:** Student sings the excerpt with accurate pitch, rhythm, and intonation.
- **Proficient, 3 points:** Student sings the excerpt with accurate pitch, rhythm, and intonation, but there are a few errors that do not detract from the performance.
- **Basic, 2 points:** The student sings the excerpt with some errors in pitch, rhythm, or intonation that do detract from the performance.
- **Emerging, 1 point:** The student sings the excerpt with significant errors in pitch, rhythm, and intonation.
- **Non-Performing, 0 points:** The student does not attempt to perform the excerpt.

After reading those, you may think they leave something to be desired, and after I tried applying them, I thought the same. I realized I wasn’t getting accurate data because too many skills were being assessed in a single rubric. Pitch/intonation and rhythm needed to be separate categories for easier documentation of issues. That said, utilizing a 0–4 scale did help me recognize trends in ability without getting lost in unhelpful nuance (e.g., *Should it be a 95 or a 94?*). By assigning scores on a more limited scale, I could quickly see who was mastering the skill and who needed extra help and guided practice!

After realizing the limitation of my initial attempt, I transformed

my rubric criteria and its ratings into something more like the following:

**Criteria:** Demonstrate accurate pitch when singing:

- **Distinguished, 4 points:** Consistently demonstrates accurate pitch with no scooping or sliding.
- **Proficient, 3 points:** Frequently demonstrates accurate pitch with a few errors in intonation or with scooping.
- **Apprentice, 2 points:** Rarely demonstrates accurate pitch, but is using a singing voice while performing.

- **Novice, 1 point:** Performs the song but does not use a singing voice while performing (chants the song).

- **Non-Performing, 0 points:** No attempt made.

Assigning scores on this rubric, I could go back and pinpoint issues I needed to help fix. Instead of wondering where it all went wrong or right, I isolated the skill the students were supposed to demonstrate and could plan for future teaching based on the patterns I saw in the scores.

Assessment in my classroom happens in several ways. Following the “aggressive

monitoring” strategy from Paul Bambrick-Santoyo, I walk through my classroom ensembles, recording what I hear as they perform as a class. I also use stations in my classroom as a time to pull small groups or individual students to assess or give mini-lessons to target gaps in skills. Finally, the students can submit recordings of their performance digitally by recording themselves as we perform as an ensemble or as they perform by themselves in class or at home. In the post-COVID teaching environment, my students and I have more opportunities and the knowledge to use technology to streamline the feedback loop.

### Recording and Analyzing Data

Equipped with my improved rubric, I could now score the students. But what do I do with these scores once I have them? Enter them into a spreadsheet, of course!

I created a spreadsheet that automatically calculates the averages of all scores I take in a grading period to make a total score in each category.

Each major category corresponds to the different TEKS strands or skills I teach in that quarter. Each smaller category (Song 1 or Example 1) is one specific scoring event, and students will receive multiple scores within each category. Go to [www.tmea.org/scoredata](http://www.tmea.org/scoredata) or use this QR code to view or download a sample spreadsheet:



I print this spreadsheet that includes my students’ names, place it next to the seating chart, and record the scores in real time on the paper. At the end of the day, I enter the scores into the spreadsheet. With a tablet, a teacher could streamline the process further by entering scores directly to the spreadsheet.

When I look at scores in this spreadsheet, I can see the forest *and* the trees. I use the spreadsheet to sort scores and look for patterns. Did everyone get a lower score on the third song? Do I see a lot of low scores on rhythm activities? Is anyone consistently getting poorer scores? Those patterns help me plan reteaching, small group activities during station time,

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and time allocation for teaching the different elements of the next activities. By seeing the big picture, I can use my time efficiently in future lessons.

### Managing a School's Worth of Data

Having taught at schools that average 400–600 students each year, I know it's difficult to keep track of student work and student data in such large quantities. For me, organization is key and minimizing physical paperwork is critical. I do use some physical copies but love to digitize everything I can.

Each week, I put a copy of today's seating charts and score records on one clipboard; all Monday classes go on the Monday clipboard, and so on. I can grab the clipboard of the day and have the information I need quickly, and I can just as easily put it away. When I'm done with the grading period, I file those sheets until the end of the year.

When the students complete physical work, like composition activities, I prefer to have them also complete digital activities. I use Google Slides and Seesaw to create digital activities with manipulatives. Using this with our Learning Management

System (LMS) makes it easy to store activities and score them, as well as quickly give feedback without getting disorganized. If the activity is physical, I record it on my score sheet in real time, and when possible, I have students take a picture of the activity and submit it as an assignment in their LMS. Performance assignments can also be recorded through Flip and viewed later if scoring students in real time is difficult.

### Is It All Worth It?

For me, yes! Putting in the extra time to collect data has been a game changer in my classroom. It's been well worth the initial time investment, for multiple reasons including the following:

Student outcomes have improved. I have been able to target students' needs more quickly and deliver more differentiated instruction and rehearsal within fewer class periods. No longer do I have those times where my class is struggling and I am struggling equally to pinpoint the problem. Even if a student is not quite in line with their peers on a particular skill, I can encourage the student by showing them how far they've come.

I can advocate with my administration. My principal is used to speaking in the language of data, and so are his higher-level administrators. By being able to talk about student achievement and student growth in real numbers, I speak a language my principal understands and respects. My students are learning real skills just as they do in language arts and math classes, and I can prove that I've measured progress. This can go a long way to teach the administration about what I do and its value.

Collecting data is at the heart of my program's progress and the successes my students have achieved. Having a clear picture of where my students are is the only way for me to build a pathway to get them where they need to go. While it does take some time and intentional organization, data-driven instruction in my classroom has been well worth it!



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