ELA: Data Practices

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8.1 Collecting Data in English Language Arts

Courses

Reflection Questions: What data can you use to help your students see their progress? How can you use that data to help students set goals and understand their growth?

Data can inform all parts of your teaching.

It can help students see their own progress and areas that need improvement. It can help you understand what specific students need. It can provide information students can use in setting and evaluating goals. Technology has greatly expanded the way data can be recorded, collected, organized, and used in a timely and efficient way. Because of technology, teachers can easily and quickly collect and use data to change and enhance their pedagogy, group students, plan remedial and extended activities for students who need it, and target specific needs of individuals, groups, and the whole class.

In order for data to be helpful, you have to organize it in a meaningful way. You may want to use subjective and objective data, observations, performance criteria, and areas of a rubric aligned with a certain learning objective. Here are a few examples:

Table 1

Collecting Data—Some Ideas

Desired Data	Ways to Gather the Data Using Technology
Students' personal characteristics	These are teacher-made resources that help you get to know your students. You might use a Google Form survey to have students answer questions about their learning preferences (alone, in groups, reading, watching, writing), their best times of day for studying, hobbies, pastimes, their perceptions of their strengths and weakness in the subject area, what they want from the class, what they are nervous about in the class, types of assessments and activities they prefer, etc. Notice and take notes on students' participation, interest in reading materials, friends, attention, outside interests, interaction with others, clues about home life, etc. **Training/resources needed to obtain/access data:** How to create a Google Form and find the results. A system for compiling observations.
Mastery data	This data may be in your LMS or an outside mastery tracker that you set up. It may include data from activities and assessments. This data can include student's reading speed, comprehension, fluency, vocabulary, decoding, sentence construction, reasoning skills, application of grammar, punctuation, spelling conventions, writing composition abilities, etc. **Training/resources needed to obtain/access data:** Training in using the grade book or other grade tracker.
Goals and progress towards goals	You can keep track of goals and the progress students are making in a spreadsheet or goal sheet you create. **Training/resources needed to obtain/access data:** Training in excel or google sheets.
Collaboration skills	You can collect data on how well students are developing the ability to collaborate through student self-reflections on the process of collaboration and their contributions, your own observations, working with students on a shared document so you can see the contributions of each student, and reports from the team members. **Training/resources needed to obtain/access data:** A system for compiling observations.
Help-seeking strategies	Observe how your students seek help and record what you see: Do individual students seek help online, from other students, from you? Are they afraid to ask for help? Do they seek help when they might figure it out on their own? **Training/resources needed to obtain/access data:** A system for compiling observations.

✎ Blended Teaching Workbook

In your blended teaching workbook, you have a blank table like the one above. Decide what sources of data you would like to use in your classroom. Fill out the chart based on what data you want to collect. You may have to ask others for ideas on types of technology and what you need to learn to use the technology.

If you haven't already opened and saved your workbook, you can access it [here](#).

8.2 Utilizing Data in English Language Arts Courses

Tracking data can help ELA teachers both improve student learning and their own teaching. Because data can help you know your students' skill levels in a large number of ELA objectives, it can help you in creating curriculum, differentiating and personalizing activities and assessments, helping students set goals, and tracking progress. It can also help you see strengths and weaknesses in your curriculum and approach to teaching, allowing you to improve your teaching. As you look at the examples below, notice how these teachers are using data. Think of ways you could improve your class by collecting and analyzing data.

Teachers Talk: Data for Goal Setting and Class Instruction

Junior High Language Arts Teacher in Nevada

I like to gather the data. I'll gather together from my diagnostic tests then I'll talk with the students about them at the beginning of the year. I meet with each student and say,"Hey, these are your current levels right now. You're at a 60% on Quill, and you are reading at a sixth grade level—which is great because you're in sixth grade. And this is what you're writing score was." Then I ask, "Do you want to improve? How?" I remind them that we can always push ourselves to be better. "I always push myself to be a better person, a better teacher, all these types of things. It's good for you to be better." And so now the kids know that too. I'll say something like, "This is great, but it can be, what?" And all together they say, "Better."

[Watch on YouTube](https://edtechbooks.org/k12blended2)

Reflection Question: How can you use data to help your students improve their writing?

8.2.1 Mastery Levels in an English Language Arts class

Because the ELA curriculum functions more as a spiral than a straight line, it can sometimes be difficult to measure mastery. How do you decide when a paper is good enough for mastery or critical thinking and analysis skills?

This is where both data practices and personalization can help. A close analysis of such things as student papers, comments, annotations, etc. can help you find strengths and weaknesses in your students' thinking, writing, speaking, and listening skills. For example, one person may be strong at writing transitions but weak at providing evidence. Another may be strong in spelling but poor in punctuation, specifically commas between two complete sentences. Maybe the student needs to improve in writing introductions, seeing and understanding symbols, or recognizing rhetorical errors in non-fiction texts. Maybe they need help with subject/verb agreement. Using this type of information to help students set measurable goals and create mastery paths can help both you and the student decide what mastery looks like and how to measure it for that student.

It may be that some students have similar problems and can be grouped together to learn and offer support. Students who excel can become mentors for those who need help and in turn can have students strong in areas in which they are weak become mentors for them.

8.2.2 Using Data to Help Improve Pedagogy

Because data often come from student performance and student activity, if you pay careful attention to student data, you can learn a lot about how to best teach your students and what pedagogy to use. What activities lead to the best results for what kinds of learning outcomes? What confuses your students? When are they most engaged? Does their engagement also lead to understanding and mastering learning outcomes? Reflecting on questions like these can help you evaluate yourself as a teacher and your students as learners. They can lead to insights that can strengthen your pedagogy and help students achieve mastery as well as their goals.

Quizzes are a common source of data. How can you best use quiz data to improve your teaching and student learning? Here are some ideas:

1. Check to see if your LMS lets you align questions to specific learning outcomes. If it does, you can determine in which outcomes students need more help.
2. If many students miss a particular quiz question, check to see if there is a problem with the question (miskeyed, difficult wording, unclear answers or expectations). If there are no problems with the question, check the standard to which the question is aligned. Pinpoint specific areas of confusion, analyze your instruction, and modify where needed.
3. If most students answer correctly, check to see if the quesion is too easy. If it isn't, review your teaching strategies for strengths that you might be able to use for similar learning objectives.
4. If just a few students miss the question, you may want to pull those students out in a small group and reteach, remediate, give extra practice, etc.

Teachers use data in all sorts of ways. Here are some examples of ways teachers have used data in an ELA classroom. What ideas do their experiences give you?

Example 1: Using Data to Help Students Get Services

I had two students with opposite needs that we were able to help through the use of data that I collected through Newsela (an online service that makes content available on many different reading levels).

- With one student, the data showed overwhelmingly that the student was three or four levels below grade level in reading. We were able to get this student the services he needed.
- Another student was getting bored in my class. He had taken the test to get into the gifted and talented program but had scored lower than the cutoff line. When I looked at the Newsela data, he was right in line with the other students in the program. So we put him in. All of sudden his demeanor changed, and he was engaged in the class (Dave Lee, Ph.D.).

Example 2: Using Data to Determine How to Make Questions Better

On Canvas (the LMS we were using) my team created quizzes for novels and other reading assignments. The data showed that the kids do much better on shorter quizzes. If the quiz was over 12 questions, scores began to fall. So, we adjusted the length of the quizzes and had much more consistent performance (Brianne Anderson).

Example 3: Using Data to Answer Questions

Using data I have been able to ask and find answers to a lot of different questions:

- Q: Why did every single student miss this question?
- A: The question included a drop down menu. The students didn't know how to use it.

- Q: Why did this class understand some concept and another class didn't?
- A: We didn't have time for the online activity in one class. When I went back and did it with that class, their scores improved.

- Q: The data shows that my morning class struggles to understand concepts. Why?
- A: I had to experiment to find the answer to this one. Finally, I realized that these students needed to have some physical movement that early in the morning, even if it wasn't education related. My afternoon classes, however, were tired from the day and just wanted to listen and work quietly. I had to adapt my approach for both classes (Brianne Anderson).

Example 4: Using Data to Group Students

In my Canvas grade book I can sort students by their scores on assessments. If I'm doing a review, I sometimes group the top student with the bottom one and make pairs moving towards the middle. Other times, I scoop off the bottom four or five (based on their scores) and do some remedial work with them, while the other students collaborate, read, or do an activity online. I also use this data for editing or peer review. I put students who need structural help, for example, in one group and those who need punctuation guidance in another. Then I can have each group target the types of things to give feedback on or to look for when they edit (Brianne Anderson).

> ✎ **Blended Teaching Workbook**
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> Think of one source of data that you are not using but that you could use in your classroom. In your workbook, outline a way to collect that data and ways you can use it.
>
> If you haven't already opened and saved your workbook, you can access it here.

Collecting and using data may feel uncomfortable. You may think you can't do it. But if you think about it, you are collecting data all the time. You are watching your students, reading their papers, interacting with them, listening to them. You are ready to take the next step and find more formal ways to include data in your understanding of your students, their learning patterns and needs, and your strengths and weaknesses as a teacher. Data collection can open new ways of seeing.

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