SETON
EDUCATION PARTNERS

ANALYZING STUDENT ERRORS TOOL

Engaging in analysis of eros in student work is important for educators to get a deep understanding of what students are struggling with and the underlying cause of that struggle. Understanding a student's error and the cause of that error gives teachers the information they need to target students' misconceptions and push them towards mastery of a topic or skill.

How educators approach student work analysis can vary. The purpose of this tool is to guide teachers and leaders through the process of identifying the most significant misunderstanding so that they can create a plan to address the pinpointed spot where learning broke down. This data analysis tool should be used with student work samples to determine what students are struggling with, why they are struggling, and to create a plan to support students.

Directions

1. Determine what kind of recent student work sample you want to analyze: tests, exit tickets, quizzes, independent work, etc.
2. Collect that sample from six students who are representative of your class– two not on track, two on track and two above/meeting expectations.
   a. For example, after giving a quiz, you may select two quizzes where the majority of questions were answered incorrectly and showed little to no understanding, two quizzes where students showed a partial understanding and were on track to master the concept by the end of the week and two quizzes where students got the majority of questions correct and showed mastery or almost mastery.
3. Go through each step below. At each step, look at each of your work samples and answer the questions about each one in the blank space provided.

Step 1: Determine which questions students struggled with	
Look at each question and notice trends in student understanding. Note below questions students answered correctly and incorrectly. Answer: ● Which questions did students get right? ● Which questions did students get wrong? ● Which questions did students show a partial understanding of?	

Step 2: Identify errors	
Look at the questions that students struggled with or got incorrect. Compare student answers to each other to determine what the error was and where there were similar errors. Answer: What errors did students make?	

Step 3: Determine cause of errors	

There are many different reasons a student may get a question incorrect and the underlying cause of an error will dictate the instruction needed to close the gap in understanding. Looking at the errors you identified in step two, determine what the cause of those errors was by thinking about what the skill or understanding gap is. First, consider what skills and understandings the question demands in order to be answered correctly. Then, looking at the student work, determine what skills/understandings students already demonstrated and what needs to be taught in order to answer this type of question correctly next time.
 	
Answer:
   • Looking at the question itself – What skills or understandings did students need to show mastery on this question?
   • Looking at the student work – What skills/understandings did they show mastery of?
   • Looking at the student work– What skills/understandings did they struggle with? What line of thinking led the student(s) to make this error? What type of error is it?	

Step 4: Identify *significance* of error	
In addition to the cause of an error, another important consideration is the significance of the error. Consider whether the skill or understanding has lasting or long term significance...does it have importance for an upcoming unit, the current grade-level, or for students to have success in a future grade level. Some errors are major and some are minor. Sometimes these considerations are in *isolation* (Ex: Is it important that students can identify the difference between rectangles and squares?) and other times these considerations are *relative* to other skills and errors (Ex: What is more important: That students know how to clearly craft a thesis statement or how to write an essay in proper MLA formatting?). Answer: • Which error(s) if left unaddressed will have the most detrimental effect on future student learning? • Which error(s) indicate a misconception around a building block that might be necessary for success in a future unit? • Which error(s) relate to a skill that is a prerequisite for another skill?	

Step 5: Prioritizing errors	
The analysis you have done thus far has likely surfaced at least two -- if not more -- errors that indicate student skill or understanding gaps. You've also considered which errors have a more significant impact on student learning. In this step, consider together both the cause of student error and the significance of those errors to prioritize the most important error to address with students. What you choose to prioritize is going to depend on a variety of factors but choosing an error is better than not addressing any errors at all. What matters is that you have a reason for targeting that error that is grounded in data. Answer: • Which error are you going to prioritize for targeted instruction? • Which students (and how many) struggled with each skill? • Why are you targeting this error? (What cause and significance led you to this decision?)	

Step 6: Selecting instructional action	

Now that you have prioritized an error, you will select an appropriate action to address the skill or understanding gap. There are many ways to deliver targeted instruction but it is important that the instructional action plan fits with the error prioritized Based on the analysis you have just done, brainstorm what you would do to address this student error. Check out this resource to help you determine what type of targeted instructional action would best address the student error.
 	
Answer:
   ● What approaches or strategies might lend to meeting the student error you prioritized?
   ● Does the error and student need lend itself to whole group remediation? Small group remediation? A content provider reteach? Extra practice for homework? Is one course of action more efficient than another? What is the best fit?
   ● How will you address this student error? What strategies will you use, when will you address this and with which students?	