Professional Development Documents: Examining Student Work

In this packet you will find a set of handouts and support materials for the Examining Student Work professional development module. These documents represent the work of the leadership of the Assessing with Learning Progressions in Science Project, a Math Science Partnership through the Northwest Educational Service District in Washington State. We encourage others to use these materials as part of their own professional development programs. These materials can be found on the professional development tools section of the ALPS project web page www.nwesd.org/nwalps. For access to editable versions of these documents please contact Nancy Menard nmenard@nwesd.org.

Description of the Enclosed Documents

High-Medium-Low Protocol

This version of the High-Medium-Low protocol is designed to help groups clarify and build a common understanding of student success criteria in their learning progressions. It also improves their ability to identify evidence of student understanding in formative assessment tasks.

Student Sort Grid

This is a record keeping document for participants using the High-Medium-Low protocol

Using the Protocol

Protocols for looking at student work provide a structure for a safe, focused conversation around student understanding evidence. When using a protocol, it is important to stress that participants should "trust the protocol" and be sticklers for engaging in the conversation as prescribed. The roles of timekeeper, facilitator and record keeper are identified in the protocol and should be taken seriously; the success of a protocol driven conversation often depends on the willingness of participants to engage actively in these roles. Groups of 4-6 participants work best.

Preparation:

1) Make copies of the High-Meduim-Low Protocol for each participant
2) Make one copy of the Sort Grid for each group
3) Choose an assessment task from the participants' learning progression, ideally the task will be one designed and administered by all participants.
4) Assemble a set of 10 student work samples from your chosen assessment task. Do not pick all "high" or all "low" performing students, aim for a representative sample.
5) Remove any identifying teacher or student information from your sample set.
6) Number each sample and make identical sets for each participant. Each participant will need their own set of student work during the protocol.
7) Assure that participants will have access to their learning progression as well as their instructional materials and helpful supporting resources such as standards documents and research on student misconceptions

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Collaborative Protocol for Examining Student Thinking

This protocol is based on the work of the North Cascades and Olympic Science Partnership

Time	Process	Roles and Responsibilities
	Choose a **facilitator, time keeper, and recorder.**	
Step 1 5 min	<u>Complete the Assessment</u> • Read the assessment task and answer it yourself	**Facilitator:** Remind group of the norm of silence. **Timekeeper:** Hold group to time indicated in the protocol.
Step 2 10 min	<u>Task Clarification</u> Discuss: • What is the "best" answer(s)? • What is the scientific explanation? • What was the building block learning target assessed with this task? • What student ideas is this this assessment designed to "uncover"?	**Facilitator:** Ensure that participants stick to the topic with short, concise comments. **Timekeeper**: Hold group to time indicated in the protocol.
Step 3 20 min	<u>Using H-M-L to Analyze Student Work</u> ● **Independently** sort student work into 3 piles to indicate high, medium, and low. <u>Developing Common Sorting Criteria</u> Discuss: o Each member **shares their criteria** and **sorting decisions** with the group while others listen, without questioning or challenging. o As a group, discuss the criteria shared individually and come to **consensus on a group criteria** o Re-sort the student work as a group based on the collaboratively developed criteria. o Compare the agreed upon criteria to the original success criteria listed on your learning progression. Do they differ? In what way?	**Facilitator:** After each person has sorted student papers individually, have each member call out how they sorted each paper. **Recorder:** Use H-M-L Grid to record how teachers sorted student samples. **Facilitator:** Facilitate discussion so group can reach consensus on criteria for sorting student work and analyze student understanding **Recorder:** Record criteria for H-M-L. **Timekeeper:** Keep people moving through this process, 20 minutes total.

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Step 4 15 min	<u>Analysis</u> Discuss: ● How do the results from step 6 inform classroom instruction? ● What instructional strategies could help the **Low** students understand the concepts? ● What instructional strategies could lead **Medium** students to a more complete conceptual understanding? ● What instructional strategies could help challenge the **High** students?	**Facilitator**: Make sure that each member has the opportunity to respond to each question. **Timekeeper:** Make sure group addresses all four questions during this 15 minutes.
Step 5 10 min	<u>Revisit Learning Progression</u> Discuss: ● How does this discussion inform your learning progression? ● What adjustments could you make to clarify the success criteria or building block learning targets as a result of your common criteria?	**Facilitator**: Make sure that each member has the opportunity to respond to each question. **Recorder:** Summarize the suggestions of the group on your learning progression **Timekeeper:** Make sure group proceeds through this 10 minutes.

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H-M-L Record Sheet

Adapted from work of North Cascades and Olympic Science Partnership

Student Sort Grid						
Student Number	Individual Sort			Group Sort		
	High	Medium	Low	High	Medium	Low
#1						
#2						
#3						
#4						
#5						
#6						
#7						
#8						
#9						
#10						

Sorting Criteria

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