

Session B: Analyzing & Learning from Student Work: A Protocol

Laura Maly, guzmanlm@milwaukee.k12.wi.us

Bernard Rahming, rahminbv@milwaukee.k12.wi.us

Jenny Sagrillo, jsagrillo@gmail.com

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Protocol

Analyzing and Learning from Student Work



1. Getting Started

- ❑ Facilitator identified.
- ❑ Volunteer presents student work.
- ❑ Participants review the work silently.

2. Discussing the Work

- ❑ Round 1. Describe: What do you notice about the student work?
- ❑ Round 2. Interpret: What do the students understand?
- ❑ Round 3. Question: What questions do you have about the work?

3. Reflections from the Presenting Teacher

- ❑ Comments on the student work and responds to questions.
- ❑ Shares insights from surprising or unexpected comments.

Repeat Steps 1–3 with another presenting teacher.

4. Suggestions for Teaching and Learning

- ❑ Based on the discussion of the students' performance, what might you suggest doing next with the class?
- ❑ Describe ways the assessment did or did not give students an opportunity to demonstrate what they knew.

5. Debriefing

- ❑ What are we learning through this process?
- ❑ How can the process be improved?

Protocol

Analyzing and Learning from Student Work

This protocol provides a set of guidelines for structuring conversations among teachers about student work. The goal is to foster a common understanding of student learning expectations for mathematics and to provide a collaborative forum for examining student work to inform mathematics instruction.

Each teacher brings three samples of student work from the same assessment. The work samples should reveal a range of responses from low to middle to high performance (e.g., not there yet, almost there, got it).

1. Getting Started

- The group chooses a facilitator who keeps the group focused.
- One person volunteers to present work samples from his or her students. The presenting teacher displays the work where everyone can see it or distributes copies to the other participants. The teacher says nothing about the work, the context, or the students until Step 3.
- The participants review the student work in silence. They may take notes for use during the discussion.

2. Discussing the Work

The work is discussed in three rounds. It is important that remarks are made without judgments or personal preferences. The participants take turns speaking, varying the speaking order for each round. Individuals are free to pass. There is no cross-dialogue. Comments are kept short (if you hear yourself saying “and” you’ve probably said too much). The facilitator may choose to insert clarifying questions. The presenting teacher does not take part in the discussion, but listens carefully and often takes notes .

- Round 1. Describe: The facilitator asks, “What do you notice about the student work?”
- Round 2. Interpret: The facilitator asks, “What do the students understand?”
- Round 3. Question: The facilitator asks, “What questions do you have about the work?”

3. Reflections from the Presenting Teacher

- The facilitator invites the presenting teacher to share his or her reflections and reactions to the discussion.
- The presenting teacher comments on the student work, reacts to observations, and responds to questions.
- The presenting teacher also shares insights gained from the discussion and reacts to surprising or unexpected comments from the other participants.

Repeat Steps 1–3. If other teachers have student work from the same task, repeat steps 1–3 with another presenting teacher. Continue the cycle as time allows, leaving sufficient time to move to steps 4 and 5.

4. Suggestions for Teaching and Learning

The facilitator invites everyone (the participants and the presenting teachers) to relate key ideas raised in the discussion to suggestions for teaching and ways for supporting students’ learning.

- Based on the discussion of the students’ performance, what might you suggest doing next with the class?
- Describe ways the assessment did or did not give students an opportunity to demonstrate what they knew.

5. Debriefing

The group reflects on the experience of using the protocol as a whole or to particular parts of it.

- What are we learning through this process?
- How can the process be improved?

**Documentation Sheet for the Protocol:
Analyzing and Learning from Student Work**

Date of Activity: _____ Time: _____

Facilitator: _____ Recorder: _____

Presenter(s): _____

Other members in attendance: _____

_____	_____
_____	_____
_____	_____
_____	_____

Considering Step 5: Debriefing

Any Reactions or Recommendations for the Learning Team?

Return this portion to the Learning Team.

**Documentation Sheet for the Protocol:
Analyzing and Learning from Student Work**

Step 1: Getting Started

Type of Assignment or Assessment: _____

State Descriptor (or Learning Target): _____

Depth of Knowledge: _____

Step 2: Discussing the Work

Summary of Round 1 (Describe): _____

Summary of Round 2 (Interpret): _____

Summary of Round 3 (Question): _____

Step 3: Reflections

Summary of Reflections from the Presenting Teacher: _____

**Documentation Sheet for the Protocol:
Analyzing and Learning from Student Work**

Step 4: Suggestions

Summary of Suggestions for Teaching and Learning: _____

Step 5: Debriefing

What are we learning through this process? _____

Return this portion to the presenting teacher.

Classroom Assessments Based on Standards

The Pizza Restaurant

Name: _____

Date: _____

The Montoni family owns two chains of pizza restaurants, *Lenny's Pizza* and *Mama Leone's*. Jessica Montoni was given the job of creating bar graphs for the number of pizzas sold in each restaurant chain for one week. She used the information listed in the table below.

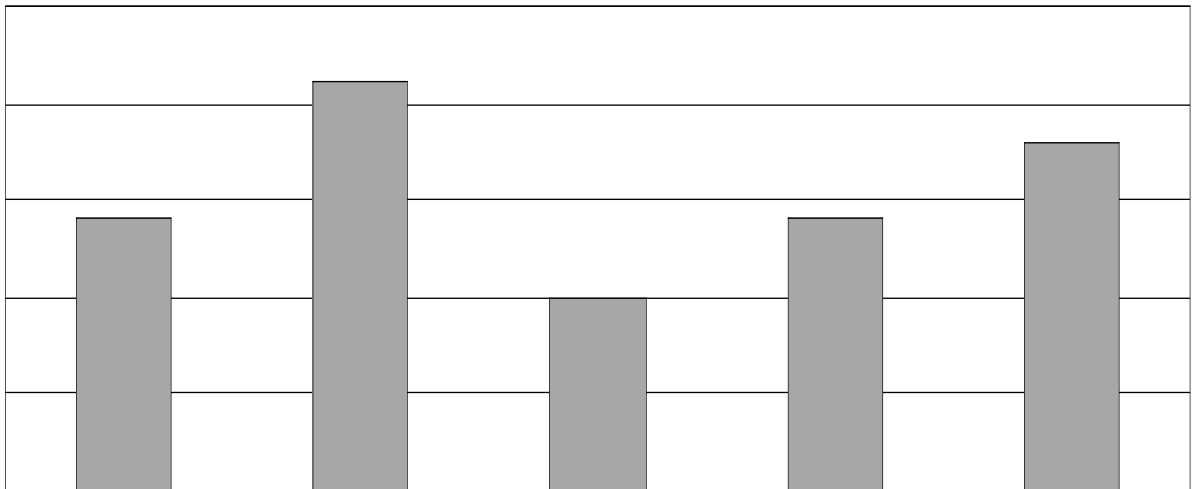
City	<i>Lenny's Pizza</i>	<i>Mama Leone's</i>
Washington	140	75
Phoenix	100	100
St. Charles	140	125
Boston	180	150
New York	210	175

FIRST determine which restaurant chain (*Lenny's Pizza* or *Mama Leone's*) is represented by the bar graph below.

Circle one: *Lenny's Pizza* *Mama Leone's*

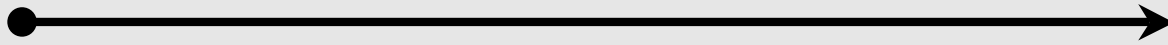
NEXT complete the graph given below by:

- Naming the bars on the horizontal axis.
- Labeling the horizontal axis.
- Numbering the lines on the vertical axis.
- Labeling the vertical axis.
- Providing the graph with an appropriate title.



School Self-Assessment and Guide

Learning Teams Continuum of Work for Mathematics



Stage 1: Learning Targets	Stage 2: Unpack & Align Targets with State Framework	Stage 3: CABS Level 1: Select/Design CABS	Stage 4: CABS Level 2 Student work	Stage 5: CABS Level 3 Formative Feedback
Understand importance of identifying and articulating big ideas in mathematics to bring consistency to a school's math program.	Develop meaning for the math embedded in the targets and the alignment to state standards/descriptors school's math program.	Provide a measure of consistency around student achievement based on the targets.	Examine student work to monitor achievement and progress toward the targets.	Use student work for instructional decisions, and appropriate, continuous, feedback to students.
Tools <ul style="list-style-type: none"> • Grade level lists of 9-11 big ideas per grade • Horizontal list of targets by content across grades 	Tools <ul style="list-style-type: none"> • Target-descriptor alignment worksheets • WKCE Depths of Knowledge Framework • Pacing Guides 	Tools <ul style="list-style-type: none"> • WKCE data on student achievement • Assessing the Assessment Guide • District Model CABS • WKCE Depths of Knowledge Framework 	Tools <ul style="list-style-type: none"> • MMP Protocol for analysis of student work • DVD of the MMP protocol in use • Descriptive Feedback 	Tools <ul style="list-style-type: none"> • Descriptive Feedback • Class and Student Feedback Summary • CABS Class Summary Report

Learning Team: "Where is our staff on the continuum of work for mathematics in regards to Learning Targets and classroom assessments and what is our evidence?"

Stage 4. Level 2 CABS—Student Work

Goal: To collaboratively examine student work from CABS in order to monitor student achievement and progress toward Learning Targets.

1. Do grade level teachers regularly (e.g., monthly) examine students' mathematics work and identify strengths and weaknesses of individual students, of a class of students, or a grade level?
2. Have teachers used the district protocol for collaboratively looking at student's mathematics work from CABS?
3. Do teachers have opportunities to share student work from CABS across grade levels?
4. Do grade level groups have opportunities to discuss with the Learning Team both summaries of student achievement on CABS and a range of student work samples (e.g., low, middle, and high benchmark papers)?
5. How does the Learning Team monitor students' progress toward meeting the Learning Targets and report this to the school staff?
6. Do teachers use the "Descriptive Feedback (Everyday) Rubric" in classroom practice and when examining student work samples?