

Analysis to Instructional Action Protocol

Purpose: This protocol supports a professional learning community as it forges intentional links between examining student work and implementing instructional change. It helps PLC members take their learning from analysis of student work and move to actions that change instructional practice. These changes in instructional practice form an action plan to help students improve in identified areas in a variety of classrooms. By the end of the protocol participants commit to specific instructional actions and to the collection of evidence to inform the impact of those actions. The seven major components of the protocol include:

1) Explaining Background and Context The presenting teacher provides background information to other participants in order to: 1) ground them in the science content from which the student artifact was derived, 2) describe the intended learning target, and 3) explain the selection process for choosing student samples and subgroups that are represented.

2) Identifying Evidence of Student Thinking Participants become familiar with the student work samples. Presenting teacher shares *evidence* of understanding, as well as *evidence* of misconceptions, and naïve or incomplete ideas. The student samples are put away for the rest of the protocol in order to ensure that the collected evidence is the source of information for future decisions.

3) Inferring Causality The presenting teacher shares background, this time unpacking the instructional actions that have led up to the point where the student samples were collected. The purpose of sharing the past instructional actions is informational, there is no intention to revisit those decisions or question the teacher's purpose in utilizing a particular instructional move. Participants develop inferences for the differences in the level of understanding in different student groups.

4) Brainstorming Lesson-Specific Instructional Responses The group purposely narrows its focus by selecting one of the student groups to examine more thoroughly. The goal is to select the most plausible inference for why the instruction did not bring this student group to a complete conceptual understanding and brainstorm future instructional actions and expected outcomes. Presenting teacher commits to an instructional action for the students in the selected group in their classroom.

5) Generalizing Instructional Responses The participants explore broader instructional implications by connecting the instructional actions brainstormed in the previous section to indicators of effective science instruction listed in the *Science Classroom Observation Guide*. Once those connections have been made, each participant selects an instructional action to investigate in their own classroom context and considers the type of evidence they will collect and a means of analyzing data.

6) Committing to Effective Instruction The group capitalizes on the expertise of individual group members and identifies specific actions to support instructional action of presenting teacher. Group enumerates specific actions for members to contribute to school wide instructional improvement.

7) Monitoring Impact of Actions Based on the evidence collected by team members, the PLC evaluates the instructional action. PLC makes recommendations for school-wide instructional action based upon this research.