



The Process of Developing Understanding: A Protocol for Reflection and Analysis

Developed in the field by educators affiliated with NSRF.

Purpose of this protocol: To analyze how a new understanding has developed and the factors that helped the understanding to develop.

Roles: A timekeeper/facilitator to help the group stay focused on how the new understanding described by the presenter was developed.

“Understanding ” is defined as being able to use what you know flexibly in unfamiliar situations or to address new problems. (Perkins '98)

1. Identifying an understanding (10 minutes)

Reflect on and then write a short description of one new understanding that you have developed or deepened this week. **Note what processes, experiences, and performances led to that understanding.** Think about these questions: What about the process took me well beyond what I already knew? What confusions emerged and how did I overcome them? Was this experience different from other learning experiences I've had—and if so, how?

2. Presenter describes the understanding (3 minutes)

In groups of 3, the first person shares his or her “new level of understanding” and **the process that made it so meaningful.**

3. Group asks clarifying questions (3 minutes)

The rest of the group asks clarifying questions about the details of the process that led to the development or deepening of that understanding.

4. Group reflects on the process of understanding (3 minutes)

The group discusses what they heard the presenter describing. Think about: What was interesting to you about the process the presenter described? What helped take the presenter well beyond what he/she already knew? What probing questions might you want to pose to the presenter?

[Note: Presenter does not participate in this part of the discussion]

5. Presenter responds (1 minute)

The presenter responds (any way he or she likes—but briefly!) to the group's discussion of what made this learning experience so meaningful. [Note: Presenter does not have to respond to questions raised in Step 4.]

6. Protocol begins again for next group member. (10 min. for each member)

Repeat steps 2 through 5 for each member of the group. Remember to keep the focus on *the process that helped to develop the understanding* (as opposed to the understanding itself).

7. Taking the understanding home (10 minutes)

As a group, talk about the strategies you can use to continue to nurture the development of these understandings once you've gone back to your setting.

8. Appreciate!

Take a moment to appreciate and celebrate the new understandings you and your group have developed.

9. Debrief (5 minutes)

Debrief the protocol as a whole group. Possible questions; what worked well? How might we apply what we learned to other work? ? What misconceptions or confusion emerged? How might students use this process to reflect on their work? What adaptations to this protocol might improve the process?