



## Deliberate Skills Development Worksheet

Leader: Ann Q. Gates

Group/Research Team: CyberShARE/Mixed Research Groups

### STEP 1. Define goals and group structure.

- a. Workshop or Meeting Type: Research Group Meeting
- b. Meeting Goals(s)/Objective(s): To discuss a research paper in preparation for the scientist's visit and future collaboration; to practice asking probing questions.
- c. Group size: 7 students (mix of undergraduate and graduate students)
- d. Group Assignment: Large group discussion of paper; predefined assignment to two groups.
- e. Role assignments: Time keeper; checker of participation; checker of criteria
- f. Room arrangement: CyberShaRE meeting room
- g. Materials needed for each group: Zimmerman's research paper

### STEP 2. Plan the workshop or meeting.

State how you will explain and structure the task:

- h. Outline of workshop or meeting: Describe the steps for running the workshop or meeting and setting up the task. Include what expected behaviors you expect from the groups and how/when you will convey it to them. Include how you will structure intergroup cooperation.

Steps:

- Send paper to students with instructions to read and prepare questions about the paper.
- Start meeting by explaining the purpose of the meeting: we will be reading Zimmerman's papers as we prepare for our collaboration; at this meeting, we will discuss the paper and also have an activity in which your group members will critique the questions that you prepared.

- Call on someone to summarize the paper. Involve everyone in the discussion. Students are expected to describe the themes of provenance, quality, tacit knowledge, and the study.
  - Ask students to describe how Zimmerman’s research relates to their research.
  - Start “Probing Question” activity: Ask students what a probing question sounds like. Use the responses to define the criteria for a probing question. Describe the roles and review the expected behaviors for each role. Tell students that they will determine who takes on which role.
  - Describe the task: Each student is asked to share his or her question(s) with the group. The group should discuss the question based on the criteria. The group is asked to come up with three of their best questions and share them with the larger group. Students are expected to practice their roles. The groups will have 15 minutes to complete their tasks.
  - Report out: Discuss at least one question from each group. Have the other group critique the question.
  - Discuss the meeting—what was learned and the importance of being able to ask probing questions.
- i. Describe how you have structured positive interdependence: Role assignments and setting the common goal of coming up with 3 questions as a group.
- j. Describe how you have structured individual accountability: Calling on students randomly to summarize paper.
- k. Criteria for success: Questions improve after activity.

### **STEP 3. Monitor and Guide.**

Describe how you plan to monitor and guide the groups as they are performing their tasks or activities. Include in your description what type of observations you will conduct (if any), e.g., rubric or informal monitoring, or if you will conduct a reflection on what worked well and what did not work well. Describe how you will provide feedback to the groups.

Group discussions were videotaped. Feedback to be provided after the meeting.

### **STEP 4. Evaluate and Process (post-mortem).**

- a. Describe how well the group functioned:

All individuals contributed to the discussion and provided a variety of perspectives. Because the assignment was given late to some students, there were a couple of students who did not complete the assignment of reading the paper.

- b. Notes on individuals:     N/A

- c. Suggestions for improvement: Provide more structure on individual accountability so that all students come to the meeting prepared. This could have been addressed by stating that all students are expected to have read the paper.