Notes on Collaborative Learning Environments

Summary of Meeting with Dr. James Greeno – 1/18/01
Discussion of Collaborative Learning Environments

Dr. Greeno explains:
There are two schools of thought on the arrangement of collaborative learning environments. One designs the collaboration into the activity the other uses a framework of roles and functions to organize the collaboration.

1. “Fostering Communities of Learners” – Campion & Brown: create an activity that organizes – constraints and affordances in order to facilitate multiple learning interactions. In this approach the design focus is in the activity. Project based with collaboration around key topics as sections of a larger report. Design process is geared toward production. A list of topics is generated and distributed to groups. Each student has responsibility for a piece of the topic. They bring their learning to share with the group, who then shares it with a larger group, and so on…..The jigsaw effect. (MAP (Greeno, Goldman, McDermitt) also fits under this model.)

2. “The Collaborative Classroom (?)” – E. Cohen: In this model the collaboration is organized around roles and functions. A structure is created that places students into various group roles such as: facilitator, note-taker, etc. Groups divide tasks and finish the assignment working within their assigned roles.

Key to any collaborative learning model: Identifiable – distributed responsibilities.

Key Points from “The New Technologies and Children’s Pro-social Behaviors” pages 227-231 in “Children’s Journey Through the Information Age” by S. Calvert

Computer interaction has started to shift the learning paradigm from individual to group work. This shift results in more opportunities for the growth of collaborative work requiring children to cooperate as they solve problems.

“Through collaborative computer work, the Department of Education and Science suggests, children will develop personal qualities such a social responsibility and the ability to work cooperatively with others. (DES, 1987)”

“Programs that elicit cooperation have the greatest impact on children’s pro-social skills.”

Ways to evaluate positive collaborative interactions:

- **Group ownership:** all members work together and feel responsible for the project outcome.
- **Mutual help:** children assist each other in understanding the material, program, or assignment.
- **Synergy:** group members stimulate each other’s thoughts, jointly work on the problem and demonstrate mutual sensitivity to one another.
Optimal Group Characteristics:

- **Group size should be a minimum of four, unless children of the same gender comprise smaller groups of two or three.** “Collaborative group functioning is often best when children are in groups of four or more.” “Reflective decisions that required children to generate ideas and perform more complex tasks favored larger groups. (Eraut, 1995)”

- **Teachers should carefully form groups to take into account gender, friendship, ability and personal factors.** If children chose for themselves, they often create same-sex groups and low-ability children end up together.

- **Individual competence should be assessed.** Mastery for all group members increases when individual, as well as group, performance measures are administered.