

Learning Environments

Research on Learning Conference

Wingspread

July 2002

Group members:

What is a learning environment?

What different types are there?

- Classroom
- Field/laboratory
- Technology-based/assisted

- What are you (the instructor) doing?
- What are the students doing?
- What are the barriers?
- What research is required to help us better understand what is going on and hence, to enhance the learning environment?

Learning Environments

What we do

Classroom

People in the group did many innovative and interactive teaching activities but were often dissatisfied both with what students learned and with what students thought they were learning

Barriers

Biggest barrier mentioned by many

- student attitudes and expectations
- hard to get them to learn to play by “new rules”

Research needed

Need

- ways of documenting learning
- new ways of assessing new goals [need to decide on new learning goals]
- how to “negotiate” student responsibilities
- population dependence
- factors in learning success

(Information from poster for this session)

Field instruction and learning

1. Much time spend on logistics/walking
 1. Novelty space; concerns about geology context, location, safety, comfort
2. Field trips are cultural norm in earth science, but often “lecture at outcrop”
3. Need structure to help frame the field investigations
4. Time is always an issue, different goals for short day trips vs. longer studies
 1. Do students have context, attitude, process, skills needed?
5. Students need to have some reason to do the study – “drop and abandon” not a good idea
6. Use van time creatively – what are students talking about between stops?
7. Research questions about field investigations/trip are needed.
 1. -analogy with informal science education
 2. -effectiveness of various modes (the one-day field trip vs the longer trip)

Notes:

OK to make mistakes along the way

Use of rubrics to structure student learning (but they may then focus on details to detriment of holistic overview.)

How does fieldwork integrate as part of a professional geologist’s life?

-social role

-learning role (is this learning mode different with professionals than students?)