COSMOS-CTLT
Research in Science and Mathematics Education Learning Community
Thursday, January 10, 2008 ~ 11:30am–1:00pm
139 Life Sciences Bldg

Attendees:

1. Cindy Bertelsen
2. Ann Bragg
3. Mohammed Darabie
4. Emilio Duran
5. Jude Edminster
6. Daria Filippova
7. Adriane Hamby
8. Jodi Haney
9. Rosemary Irons
10. Chris Keil
11. Dale Klopfer
12. John Laird
13. Steve Langendorfer
14. Neocles Leontis
15. Stephania Messersmith
16. Bob Midden
17. Barbara Moses
18. Matt Partin
19. Amy Scheuermann
20. Karen Sirum
21. Eileen Underwood
22. Rick Worch

Minutes:

I. Announcements
   a. Jodi is in Hawaii and will be back next week
   b. Mandy is in St. Louis
   c. Julie is sick today
   d. Welcome to the new semester

II. Presentations:
   a. Small groups presented to the larger group about progress from last semester.
      i. Julie's group: They are looking at students' attitudes toward biology. What motivates them (intrinsic/extrinsic) and also their self-efficacy in biology. They have collected data through surveys and will be reporting data this semester.
      ii. Rich Oldrieve's group: They are working on a visualization project. They have/working on a grant from COSMOS testing 8 courses in education as well as 2 art classes. They will be giving a pre test next week.
      iii. Emilio and Rick's group: They are working on a promotional paper in the interdisciplinary collaboration in stem-field. They have been looking at literature about what is good about it. They reported that not a lot of fundamental changes have been made. They want to present a model that BGSU and others can use. This is based on the collaboration and good things coming out of the research community. They are trying to make BGSU a model that people can look up too.

iv. Amy Scheuermann's group: They are thinking critically about critical thinking. What is critical thinking? By the end of the semester they will have a critical answer on critical thinking.

v. Dale and Barbara's group: They have started thinking about misconceptions in the physics education literature. They want to focus on addressing identified misconceptions to students with focus on vectors. Students don't know how to apply vectors. They are working with the concept of transference, from one domain to another. They think we may be trying to cover/teach too much. "Can we redo calculus in a different way?" Teachers and students are hesitant to explore. The attitudes of teachers play a role in this as well. We need to look at …"What is the critical content?" Students' perception, awareness, and ability to use concepts of the natural sciences. Specifically energy. Students have no sense that they are connected (physic and chemistry). Helpful software to look at- ED's Tools. As well as BCI.net or org.

b. Emilio noted that Jodi will report next time on the evaluation for last semester.