

**COSMOS-CTLT**  
**Research in Science and Mathematics Education Learning Community**  
**Thursday, February 7, 2008 ~ 12:00pm–1:30pm**  
**140 Life Sciences Bldg**

Attendees:

- |                        |                           |
|------------------------|---------------------------|
| 1. Cindy Bertelsen     | 14. Lan Li                |
| 2. Ann Bragg           | 15. David Meel            |
| 3. Mohammed Darabie    | 16. Stephania Messersmith |
| 4. Emilio Duran        | 17. Bob Midden            |
| 5. Jude Edminster      | 18. Barbara Moses         |
| 6. Daria Filippova     | 19. Julie Nurnberger-Haag |
| 7. Adriane Hamby       | 20. Rich Oldrieve         |
| 8. Mandy Heddle        | 21. Matt Partin           |
| 9. Tracy Huziak-Clark  | 22. Amy Scheuermann       |
| 10. Chris Keil         | 23. Karen Sirum           |
| 11. Dale Klopfer       | 24. Eileen Underwood      |
| 12. John Laird         | 25. Rick Worch            |
| 13. Steve Langendorfer |                           |

Minutes:

I. Announcements:

- a. Format (Mandy):
  - i. Mandy announced the community will move to a small group/large group format.
  - ii. The large group will focus on researched based themes such as cognition, critical thinking, learning in a digital age, models for undergraduate curriculum, peer review, and defining scientific literacy.
  - iii. A sign up sheet was passed around for the large group.
- b. Woman In Science (Julie):
  - i. Conference to be held on February 29, 2008.
  - ii. Volunteers needed to present to get young women interested in STEM careers. The presentations will last about 45 minutes. Sign-up sheet was passed around. Also, students interested in presenting with faculty/staff or on their own is encouraged.

II. Small Group:

- a. Met in microteaching rooms

III. Large Group:

- a. Chris Keil
  - i. Chris has been invited to go to Moldova Academy of Science by a former student. He asked the group for input on what he should

- talk to them about regarding advances in science education and new approaches.
- ii. Teachers in Moldova use lecture and exams as the primary way to teach science. Chris plans to find out their needs and give them information on issues based approaches.
  - iii. Suggestions:
    - Talk to them about the 5E model. Use the 5E model to present a lesson. Have them actually do it.
    - Talk to them and show them how to do inquiry and hands-on based science education. Show them the Horizons videos.
    - Talk to them about how the brain works, how people learn, using the clicker technology.
    - Talk to them about multiple intelligences, using quotes, scientific thinkers, cooperative learning, and constructivist approaches in education.
    - Show how we have evolved. Show them what we are doing with the research communities.
  - iv. Members were asked to email any references, articles, or data driven studies to Chris.
  - v. Other things to consider: May encounter resistance from administration, teachers, and students because they are so use to studying and learning this way. Also there is a big loss of students who start in STEM disciplines due to the way it is taught; it is not intellectually satisfying.
- b. Mandy distributed “What the Best College Teachers Do” by Ken Baner
- i. All read silently and then discussed with their tables.