

COSMOS-CTLT
Research in Science and Mathematics Education Learning Community
Thursday, February 21, 2008 ~ 12:00pm–1:30pm
140 Life Sciences Bldg

Attendees:

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

Minutes:

I. Announcements:

- a. Video on living cell (Mandy):
 - i. Mandy showed a video about the living cell
 - Music version:
<http://aimediaserver.com/studiodaily/videoplayer/?src=harvard/harvard.swf&width=640&height=520>
 - Long version with voice over:
<http://multimedia.mcb.harvard.edu/media.html>
 - ii. Karen Sirum said she uses this in her class but there is a version with narration. (She will send this to Jodi who will post on the website.)
- b. Case Studies in Science Workshop (Jodi):
 - i. Held at the University of Buffalo, State University of NY on May 19–23, 2008. Nancy e-mailed this to everyone, so look for it today. Pass on to other colleagues and consider attending.
- c. Langendorfer research study (Do good motor skills promote fitness?) found on BGSU homepage – check it out!
- d. Jodi announced her decision to not seek re-appointment for a second 3-year term as COSMOS Director. She will end her appointment on June 30, 2008. Jodi thanked the group for their contributions and support during her tenure. Bob Midden thanked Jodi for her service on behalf of the research community.

II. Small Group:

- a. No small groups decided to meet separately today.

III. Large Group:

- a. Mandy presented: Teacher Misconception in Physical Science. Her two primary research questions were:
 - i. What are common misconceptions among NWO-TEAMS 3- 6th grade teachers (Standards based concepts were the focus of study: chemical/physical change, non-contact forces, electricity, and density).
 - ii. How do teachers' misconceptions compare to the misconceptions of the students they teach?
- b. She stated that these multiple choice tests are required by the funding agency and reiterated how difficult they are to develop in the timeframe allowed.
- c. Summary of findings: Teachers hold many of the same misconceptions as those found of students (as documented heavily in the literature).
- d. Mandy welcomed scientist input on test-item development and stated that other scientists helped develop items in the past. The items are continually revised from year to year.
- e. Jodi reminded the audience that multiple-choice items are almost always interpreted differently by different readers because each enters the task with different experience banks to draw from. Constructivism in action.
- f. John Laird noted important implication is that something did happen to the teachers' understanding from pre tests to post test. He thought that this change was worthy of further discussion and exploration.