

Effective Practices in SOTL Professional Development

Creating and Supporting a Collaborative Faculty
Community for Classroom Research

John Ottenhoff, Associated Colleges of the Midwest
Rachel Ragland, Lake Forest College
David Schodt, St. Olaf College
Dan Bernstein, University of Kansas

The ACM-Teagle Collegium on Student Learning

- Associated Colleges of the Midwest: 14
Selective Liberal Arts Colleges
(Beloit, Carleton, Coe, Colorado, Cornell,
Grinnell, Knox, Lake Forest, Lawrence, Luther,
Macalester, Monmouth, Ripon, St. Olaf)



The Teagle Collegium Project

- To assist faculty in exploring recent developments affecting student learning and engagement.
- To test the applicability of such knowledge by putting it to work and carefully evaluating its effects in individual courses and program design.
- To achieve demonstrable increases in the engagement and learning of undergraduate students in the arts and sciences.
- To develop case studies, bibliographical and web resources to help others interested in this knowledge and its application to student learning.

The Teagle Collegium Project

From the Teagle RFP:

- **MEANS:** We are open to a wide range of designs, provided they include faculty from a reasonable range of disciplines, draw on the best available scholarship on student learning and its assessment, and systematically evaluate such knowledge by putting it to work in classes or program design.
- **LEADERSHIP:** While we expect that the conveners of the Collegia will be highly respected faculty members with a demonstrated interest in student learning, we recognize that part of the excitement of this work comes from the fact that it is not the bailiwick of any one discipline or approach. Thus traditional top-down, master-to-apprentice instruction is not expected or desired. Instead we look for leadership that can recognize important ideas and stimulate discussion of their implications and good planning for their application.

Project timeline

AY 2009-10: Classroom interventions



Collegium Projects

- **Kristin Bonnie** (Psychology; Beloit College): *Introductory Psychology & Metacognitive Strategies*
- **David Thompson** (Spanish; Luther College): *Metacognitive Self-Regulation and Comprehensive Testing in Intermediate Spanish*
- **Diane Angell** (Biology; St. Olaf College): *Metacognitive Assignments in Biology Bridge Courses*
- **Kent McWilliams** (Music; St. Olaf College): *Metacognition and Piano Playing: "How Do I Learn This Piece?"*
- **Steve Singleton** (Chemistry; Coe College): *An Integrated Lecture-Laboratory Learning Environment*
- **Holly Swyers** (Anthropology; Lake Forest College): *The "Pod" Project*
- **Karl Wirth** (Geology; Macalester College): *Better Learning Through Better Reading and Reflecting*

Collegium Projects

- **Clara Hardy** (Latin; Carleton College): *Metacognitive Awareness in Learning Latin*
- **Tricia Waters** (Psychology; Colorado College): *Reflective Judgment*
- **Tony deLaubenfels** (Computer Science; Cornell College): *Tweeting Metacognition*
- **Susan Fox** (Computer Science; Macalester College): *Reflecting on Problem-Solving and Design to Improve Performance in Intro Computer Science*
- **Tim Tibbetts** (Biology; Monmouth College): *Reading Reflection & Knowledge Surveys in Biology*
- **Joy Jordan** (Statistics; Lawrence University): *Teaching Sampling Distribution*
- **Maria Kelly** (Education; St. Olaf College): *Student Confidence Levels in Writing*

Lessons Learned

- Metacognition as a fruitful subject for collaboration, a common language.
- Successful faculty development takes time, particularly if it involves work (like the scholarship of teaching and learning) with which faculty are not familiar.
- Successful projects are long-term, blending support and accountability.
- Having a history of close institutional collaboration through the consortium helped a lot and created multiple networks.

Importance of Follow-Through

- Final conference: shared abstracts, handouts, presentations, respondents
- Web resources:
 - <http://www.acm.edu/collegium>
 - http://serc.carleton.edu/acm_teagle/index.html
- Conference presentations
- New projects? New collaborations?

Goals, Value and Achievements of Faculty Collaboration: Impact on Individual Faculty Members

**Rachel Ragland
Lake Forest**

Goals of Faculty Collaboration

- Improving teaching and learning
- Opportunity for faculty interaction around a shared issue – metacognition and its impact on student learning

Value of Faculty Collaboration

- Authentic involvement of faculty to address a common concern initiated and sustained by faculty members themselves
- Common starting point leads to larger conversations about teaching and learning

Small Group Collaboration

- Holly Swyers, Lake Forest College: “Pod” Project – three First Year Studies sections
- Kristin Bonnie, Beloit College: Introductory Psychology & Metacognitive Strategies
- Emily Stovel, Ripon College: Anthropology and the Culture of Metacognition

First Year Studies “Pod”

- Metacognition as a unifying framework and common language for three courses
 - Education; Chemistry; Anthropology
- Team of colleagues, including faculty teaching the courses, a coach, public safety officer, student-life professionals, and learning specialists
- Helped students see that the overriding premise of all their college activities was consistent

Foundations of Faculty Collaboration

- Trust
- Communication
- Sense of shared interests and goals
- Defined & clear expectations and roles
- Collegiality & reciprocity
- Common language

Dimensions of Faculty Collaboration

- Achievements:
 - Egalitarian Ethic
 - Substantive Collegial Interaction
 - Intellectual Community

ACM-Teagle Collegium: Metacognition

Faculty Development Issues

David Schodt, St. Olaf College

Finding a Good Problem

Problems worthy
of attack
prove their worth
by hitting back.



Piet Hein

(Danish scientist, mathematician, inventor,
designer, author, and poet; 1905-1996)

<http://ctn.terrystewart.ca/~tcstewar/grooks/>
<http://www.poemhunter.com/poem/t-t-t/>

Just-in-Time Faculty Development

- Providing information
- Defining a teaching problem
- What is this SoTL?
- Methodological issues
- Building community
- Large spillover effects on teaching
- Time on task

Information

- Developing a familiarity with the metacognition literature
 - “thinking about thinking”
 - Why important to learning (Bransford, *How People Learn*)
 - First speaker...
- Outside experts
- Inside experts

Defining a Teaching Problem

In scholarship and research, having a “problem” is at the heart of the investigative process.... But in one’s teaching, a “problem” is something you don’t want to have, and if you have one, you probably want to fix it.

Changing the status of the *problem* in teaching from terminal remediation to ongoing investigation is precisely what the movement for a scholarship of teaching is all about.

“The Scholarship of Teaching: What’s the Problem?” Randy Bass, *Inventio*, February 1999, Vol. 1, No. 1

Scholarship of Teaching and Learning

“the scholarship of teaching is problem posing about an issue of teaching or learning, study of the problem through *methods appropriate to disciplinary epistemologies*, application of results to practice, communication of results, self-reflection, and peer review.”

Barbara Cambridge quoted in “Fostering the Scholarship of Teaching and Learning: Communities of Practice,” pp. 3-16, in *To Improve the Academy*, D. Lieberman and C. Whelberg, eds. 2001

A Big Tent

[We] have come to embrace a capacious view of the topic, wanting to draw this movement in the broadest possible terms...as a big tent...

this work can include (at one end) studies with elaborate research designs and formal execution that go beyond a single classroom, program, or discipline, as well as (at the other end) quite modest efforts to document and reflect on one's teaching and share what one has learned.

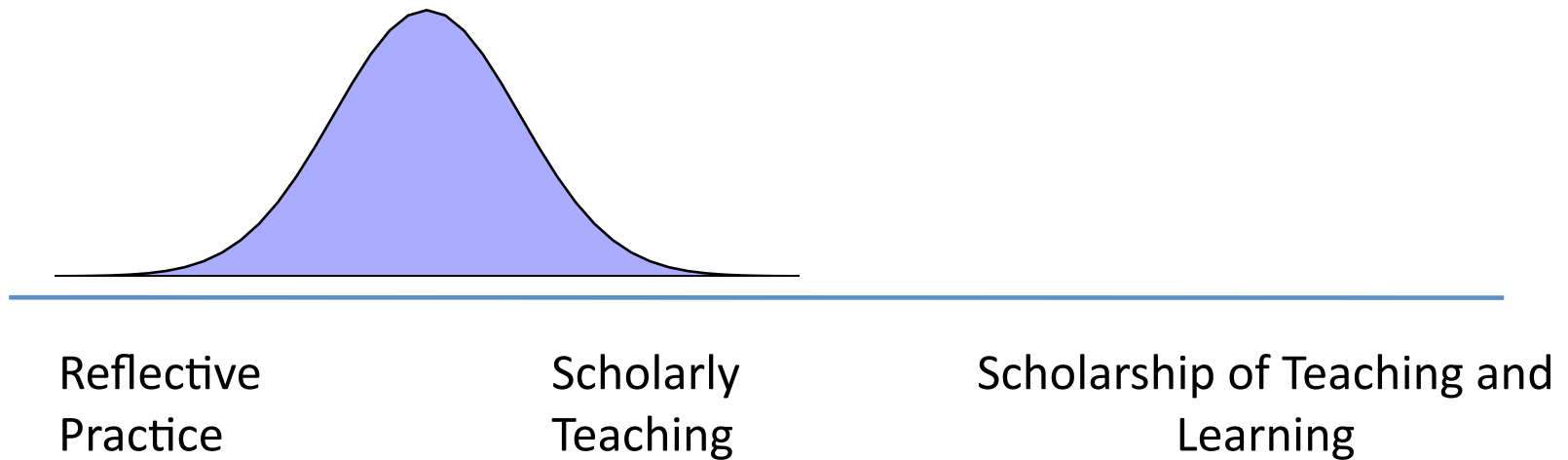
Mary Taylor Huber and Pat Hutchings, *The Advancement of Learning: Building the Teaching Commons*, San Francisco: Jossey-Bass, 2005, p.4.

A Scholarship of Teaching and Learning Continuum

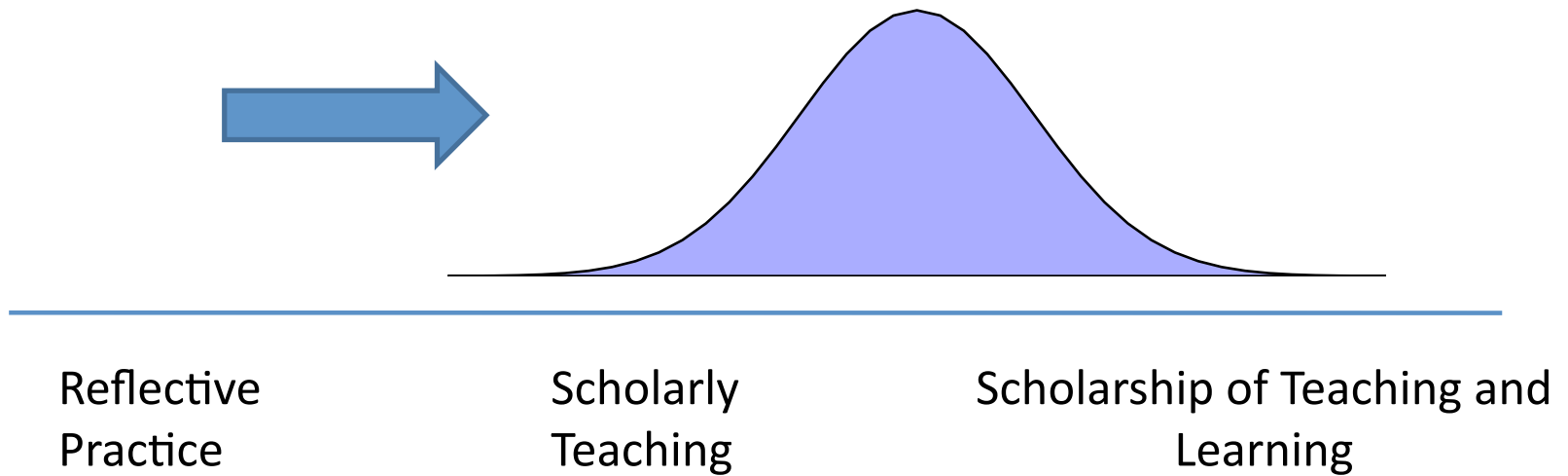
Stage	Stage One: Growth in effective (reflective) teaching	Stage Two: Growth in scholarly teaching	Stage Three: Growth in the scholarship of teaching and learning
Description	Develop personal knowledge about their own teaching and student learning disciplines	Develop and exchange knowledge about scholarly teaching and learning within, across, and beyond the discipline	Develop scholarly knowledge about teaching and learning that has significance and impact

Randall, N. (2004). Navigating the scholarship of teaching and learning. In Cambridge, B. L. (Ed.) *Campus progress: Supporting the scholarship of teaching and learning*. (pp 181 – 185). Washington, DC: American Association for Higher Education

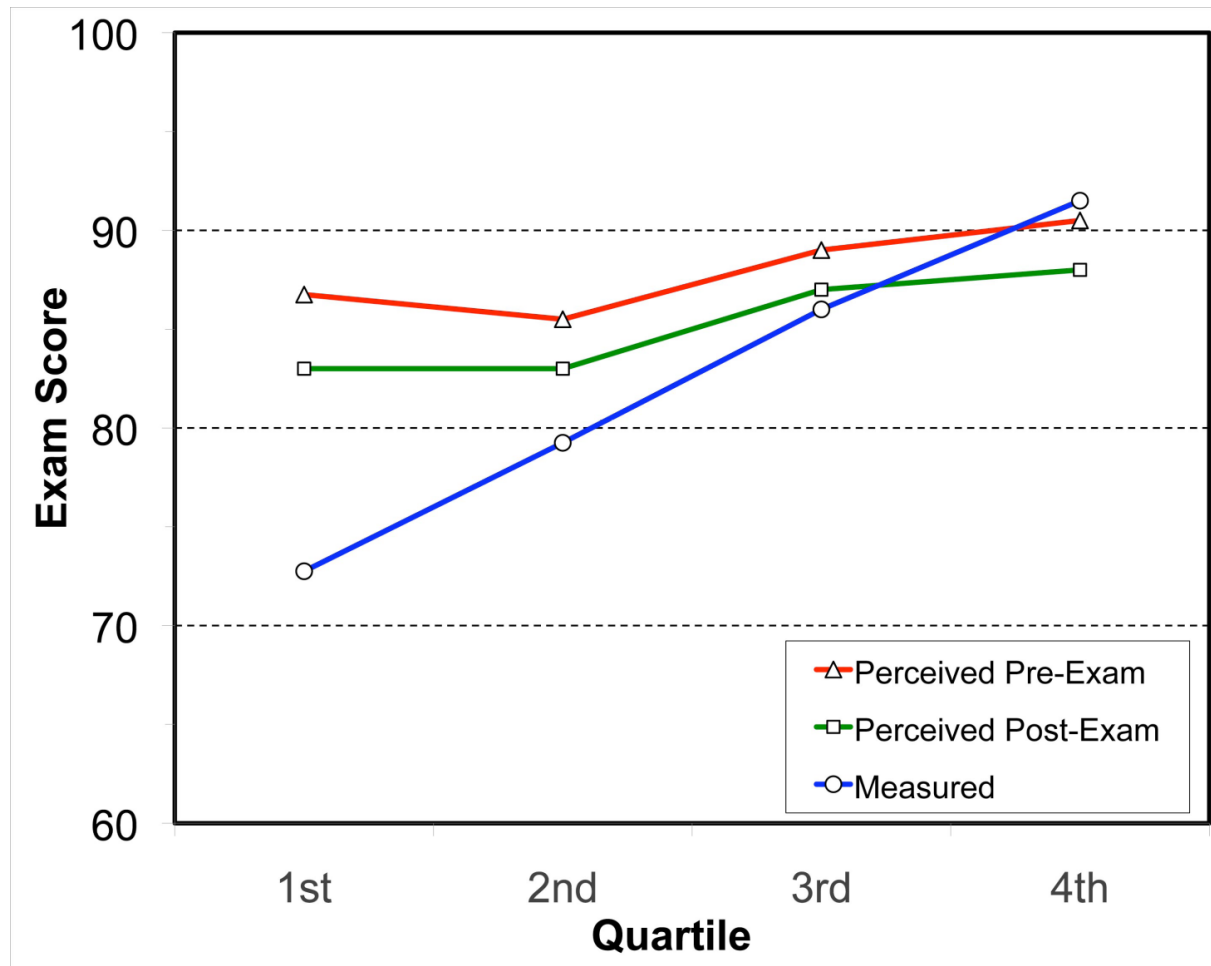
The Scholarship of Teaching and Learning: A Continuum of Practice



A Continuum of Practice

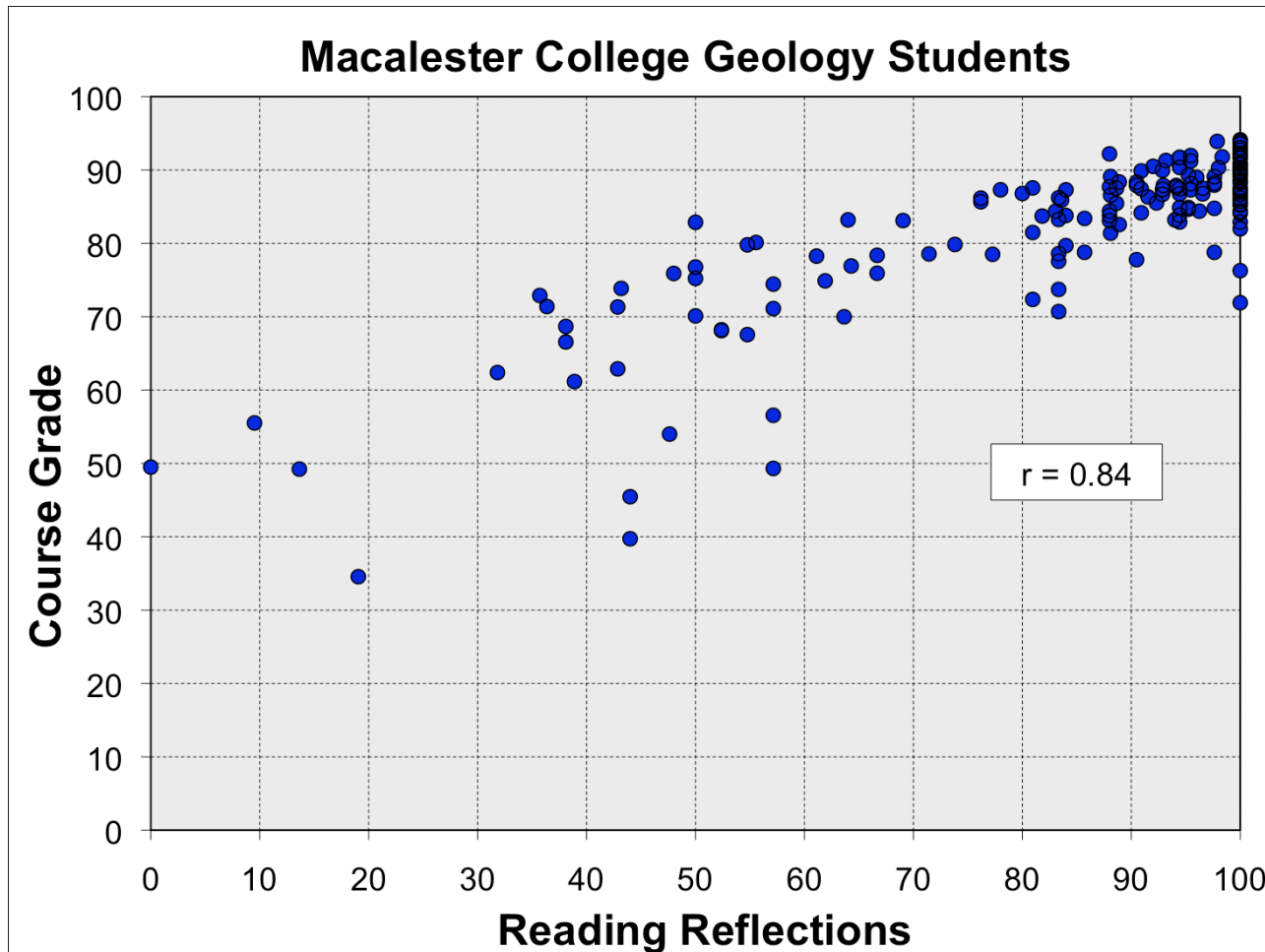


Metacomprehension



READING, REFLECTING, AND RELATING: A Metacognitive Approach to Learning, Karl Wirth, *Macalester College*; Fahima Aziz, *Hamline University*, Dexter Perkins, *Univ. North Dakota*. Annual Meeting of the Geological Society of America Portland, Oregon, 2009

Reading Reflections



READING, REFLECTING, AND RELATING: A Metacognitive Approach to Learning, Karl Wirth, *Macalester College*; Fahima Aziz, *Hamline University*, Dexter Perkins, *Univ. North Dakota*. Annual Meeting of the Geological Society of America Portland, Oregon, 2009

Building Community

- Faculty from all ACM colleges represented
- Building trust
 - Katarina Martensson and Torgny Roxa's on academic microcultures
- Identifying and resources
 - Internal
 - External

Methodological Issues

- Apply the tools of one's discipline to a teaching problem
- Disciplinary differences (music versus biology)
- Avoidance of “methodological purity”
- “Exam wrappers”
- Control groups

Large Spillover Effects

- “As is true of most good SoTL projects, inquiries into student learning begat further questions and more reflection about the practice of teaching.”



(John Ottenhoff, *Liberal Education*)

Large Spillover Effects



Time on Task

- Project Design:
 - Begun in November 2008
 - Concluded with a presentation at AAC&U in January 2011
 - About 27 months duration
 - Regular meetings of all participants

T. T. T.

Put up in a place
where it's easy to see
the cryptic
admonishment
T.T.T.



When you feel how
depressingly
slowly you climb,
it's well to remember that
Things Take Time.

Piet Hein

<http://ctn.terrystewart.ca/~tcstewar/grooks/>
<http://www.poemhunter.com/poem/t-t-t/>

ACM-Teagle Collegium: Metacognition

An Evolving Model of
Collaborative Inquiry

Dan Bernstein, University of Kansas

Two Observations about Collegium

- Advantage of an outside consulting colleague
- This is an excellent example of an emerging form of inquiry

Gave some perspective

- Able to help participants see their own work in the context of 100s of SoTL projects
- Situated their work along the continuum of methodologies David identified
- Emphasized their disciplinary strengths as a key method within SoTL
- Centered the balance of valuing among forms of inquiry and evidence

Carnegie – Tony Bryk and others

Our Approach



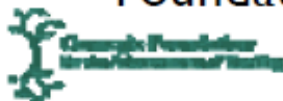
- **Problem-Centered**
- **Rapid iterative cycles** of Improvement Research
- New **Social Arrangements:**
Networked Improvement Communities (NICs)



Focused version of collaboration

The Networked Improvement Community

- **The High Leverage Problem:** Extraordinary failure rates in community college developmental math courses
 - “Where Aspirations Go to Die”
- **Learning Through Doing:** Building an integrated 1-year pathway “To-and-Thru” college-level credit
- **The Network:** 27 colleges in 8 states
 - Dana Center, OLI at Carnegie Mellon
 - Foundation Partners, Thought Partners



Distinct from current model

Problem-Focused Networks



Communities of Practice:

- Loose and broad
- Sharing information
- “Idea Bazaars”
- Weak mechanisms for directing intentional action



Networked Improvement Community:

- Aimed at a common complex product
- Rules and norms for participation

Intended to increase focus and rate

Targets & Measures



Communities of Practice:

- Share common interest or concern
- Catalyze discussion
- Rarely share common outcomes



Networked Improvement Communities:

- Explicit targets: shared, feasible and measurable
- Catalyzes discussion
- Direct and maintain focus



ACM Collegium is a great start

- Agreement to share a common question
- Sharing resources and results
- Bringing forward overall results
- Next steps
 - Make the Network closer and more continuous
 - Speed up action and interaction (¿TTT?)
 - Synthesize the results of related work
 - Reach implementation recommendations
- Terrific model to follow
- On line Collaboratory – ISSoTL 2012

Thank You!

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- **Kristin Bonnie** (Psychology; Beloit College)
- **Tony deLaubenfels** (Computer Science; Cornell College)
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Thank you!

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 - David Schodt, Rachel Ragland
 - Paul Kuerbis (Colorado College), Chico Zimmerman (Carleton College)
- “Outside” Facilitators
 - Sarah Bunnell (University of Kansas/Ohio Wesleyan College); Kathy Takayama (Brown University); David Reichard (Cal State—Monterrey Bay)
 - Dan Bernstein (University of Kansas)