



AGENDA **Emory Conference Center**

Sunday, January 4, 2009

Session 1

7:15 p.m. – 9:00 p.m.

Goal: Project leaders provide context. Critical Advisors meet each other and comment on the vision of Mobilizing STEM Education for a Sustainable Future. Meeting facilitator, Mel George, reviews the meeting goal, guiding questions, and agenda.

4:00 p.m. Registration (Table across from front desk in Lobby)

Pick up your name tag and additional materials for your briefing book.

5:30 p.m. Pre-dinner social time (Drawing Room)

6:30 p.m. Dinner (Dining Room)

For those with flight delays, the dinner buffet will be available until 9 p.m.

The hotel restaurant closes at 10 p.m.

7:15 p.m. Welcome and framing

(Mel George, Jean MacGregor, Cathy Middlecamp, Susan Millar, Elaine Seymour)

7:50 p.m. Critical Advisor (CA) introductions

(Mel George)

CAs introduce themselves by commenting on the Vision Statement* and what stands out for them as important, promising, or problematic (up to 2 minutes each).

8:50 p.m. Review of meeting goal, guiding questions, agenda, and meeting processes

(Mel George)

Vision Statement*

9:00 p.m. Adjourn

* found in the green pages under the Agenda tab.

Monday Morning, January 5, 2009

Session 2

8:30 a.m. – 12:30 p.m.

Goal: Obtain CA responses to Questions 1a & 1b.

Q1a. If our overall vision for STEM education reform were to be realized, how would the current USA higher education system be different than it is today?

Q1b. To realize this re-imagined system, what major elements of the current USA system of higher education would we need to change and in what ways?

7:30 – 8:15 a.m. Breakfast (Dining Room)

- Critical Advisors who arrived late and missed the Sunday evening session meet with Cathy Middlecamp, Mel George, and Myles Boylan and others for briefing during breakfast.
- Fish bowl presenters meet informally (reserved tables).

8:30 a.m. Additional introductions & recap of Sunday evening (Hickory Room)
(Mel George and Jean MacGregor)

8:50 a.m. Guiding Question 1

(Mel George and Susan Millar)

In three “fish bowl” discussions¹, we will address this question:

*Please respond to Questions 1a and 1b by drawing on your own expertise and experience to identify the most important major **elements** of the present system that would need to change—and in what ways—in order to realize the future system that we envision?*

9:15 a.m. Fish Bowl #1: STEM education reform and improvement in IHEs

(Judith Ramaley, Karl Smith, Karan Watson, facilitated by Elaine Seymour)

10:00 a.m. Refreshment break (Hot/cold drinks, fruit, snacks)

10:30 a.m. Fish Bowl #2: Sustainability education in IHEs

(Stephanie Pfirman, Debra Rowe, Dick Jackson, facilitated by Jean MacGregor)

11:15 a.m. Refreshment break

11:30 a.m. Fish Bowl #3: Larger trends & factors affecting change in IHEs

(Peter Ewell, Brit Kirwan, Bob Zemsky, facilitated by Susan Millar)

¹ There will be 3 fish bowl sessions, each of which lasts 45 minutes, as follows:

- 25 minutes - 3 CAs and a facilitator (member of planning group) present in a fish bowl format, with all others listening in a circle around them.
- 5 minutes - Mel initiates think-pair-share session among listeners.
- 15 minutes - Mel asks full group to direct questions to CAs in the fish bowl, and also asks, “What other elements should be included in both the current and envisioned situation?”

Monday Afternoon, January 5, 2009

Session 3

12:30 p.m. – 5:30 p.m.

Goal: Obtain CA responses to Question 2.

Q2. What existing or emergent trends or system design ideas could be adapted or built upon to bring about the changes in the major elements raised by the previous question? Are entirely new ideas needed, and if so what would they be?

12:30 – 1:15 p.m. Lunch (Dining Room)

Working sessions are set up (Mel George)

1:15 p.m. CA writing (work where you please)

Assignment for CAs: “Drawing on your own knowledge, suggest up to 3 very important existing or emergent trends or system design ideas that could be adapted or built upon to bring about the changes in the major elements raised by the previous question.” (A list of major elements identified in the morning session, three 5” x 8” Post-It cards, and a felt-tip pen will be provided to each CA.)

1:45 p.m. Cluster identification and refreshments (Hickory Room)

(Mel George, Jean MacGregor, Ann Austin, Sharon Dunwoody, Adrianna Kezar)

- CAs individually place Post-It cards on the “element posters” of their choice.
- The 5 session leaders work to relate the suggested trends and design ideas to specific elements or clusters of elements (from morning session), taking input from other CAs.
- Then Mel works with all CAs to identify elements, or clusters of elements, deemed most important. (We will focus the rest of our time on these clusters of elements, with their associated 5” x 8” Post-Its.)
- CAs identify the element or cluster of elements that they most want to work on and organize into working groups of 3-5 CAs. Mel provides instructions for small group process.

3:00 p.m. Small breakout groups (Beech, Poplar, Hickory, and other spaces)

Each group briefly restates their understanding of: (a) the envisioned future, (b) the major elements of the present system, and (c) the element/cluster of elements that needs to change on which they are focusing. Then the group discusses and *identifies specific trends and design ideas* that pertain to their element and that they believe should be further developed or deployed in order to achieve the envisioned future.

4:30 p.m. Emergent big ideas, insights, and puzzles from small groups (Hickory)

A CA chosen by each group gives a succinct report that highlights the emerging big ideas and any important insights and puzzles from their group’s discussion that the full group would benefit from hearing.

5:15 p.m. Parting thoughts on Monday’s work

(Peter Bruns, Bill Sullivan, Ralph Wolff)

Monday Evening, January 5, 2009

Session 4

7:15 p.m. – 8:45 p.m.

Goal: Engage in an informal discussion about theories of change.

6:00 p.m. Pre-dinner socializing (Drawing Room)

6:30 p.m. Dinner (Dining Room)

7:15 p.m. Informal discussion (Hickory Room)

(facilitated by Elaine Seymour)

8:30 p.m. Preview of Tuesday's agenda and input from CAs

(Mel George)

8:45 p.m. Adjourn

Tuesday morning, January 6, 2009

Session 5

8:15 a.m. – 12:15 p.m.

Goal: Get CA responses to Questions 3 & 4:

Q3. How would redesigned elements work together coherently to produce a whole system that could indeed achieve our vision? (Note: We will have more time to work on this in our June meeting.)

Q4. Given our responses to Question 2, how can our envisioned changes be accomplished and sustained? That is, what theories of change are likely to be effective?

7:30 – 8:00 a.m. Breakfast (Dining Room)

8:15 a.m. Reality check and quick look at Question 3 (Hickory Room)

(Mel George)

Review of key outcomes from Monday and brief consideration of Q3:

How would redesigned elements work together as a whole system that would achieve our vision? Does it seem like they would work together as a coherent whole?

(Note: We will have more time to work on this in our June meeting.)

9:00 a.m. Monday's small groups reconvene and work on Question 4

Given our responses to Question 2, how can our envisioned changes be accomplished and sustained? That is, what theories of change are likely to be effective?

The goal is for each group to continue its work discussing Q4, and by 11 a.m. produce one or more posters that summarize its work. In producing this poster, groups should consider the full list of Guiding Questions, listed on the green sheet.

During this time period, decide amongst yourselves when you want to check out. Leave bags with concierge.

11:00 a.m. Refreshments & poster session

Three CA commentators (Jim Elder, Shirley Malcom, and Uri Treisman) comment on the themes they notice in the posters and identify points they believe are missing.

11:30 a.m. Poster session commentary

(Jim Elder, Shirley Malcolm, and Uri Treisman)

Reports from 3 CA commentators and plenary discussion of Question 4.

12:15 p.m. Lunch (Dining Room)

Tuesday afternoon, January 6, 2009

Session 6

12:15 p.m. – 3:15 p.m.

Goal: *Get initial thoughts of CAs about Questions 5a & 5b:*

Q5a. Given what we have done thus far, what should the next steps be in order to move toward our vision? How should/could the CA group itself be involved?

Q5b. Our second meeting is scheduled in June here in Atlanta. How do we plan that meeting so as to advance whatever course of action is implied by answers to Q5a?

12:15 – 1:30 p.m. Lunch (Dining Room)

CA's, NRC listeners, and Planning Group members: please sit at assigned tables.

12:15 p.m. Over lunch, brainstorm responses to Questions 5a & 5b

(Discussion leaders: Susan Albertine, Jim Elder, Ted Greenwood, Adrianna Kezar, Caryn McTighe Musil, Jeanne Narum)

1:30 p.m. Walking and thinking about Questions 5a & 5b

Go walking, alone or with another person, and think about Questions 5a & 5b. In preparation for the next session, consider these questions in light of the information and ideas that have surfaced thus far.

2:00 p.m. Discussion of Questions 5a & 5b (Hickory Room)

(Mel George)

3:00 p.m. Final tasks

- Logistics: planning group's next steps, expense forms, travel (Cathy Middlecamp)
- Writing: overall meeting feedback, last page under Meeting Record and Feedback Documents tab.

3:15 p.m. Adjourn