

Appendix: Workshop Agenda and Participant list

Memorandum

To: Participants in the Transfer Workshop

From: Jose Mestre and Rod Cocking

Subject: Workshop organization, agenda, and schedule

Date: February 25, 2002

The workshop is organized around three overarching themes outlined below. We have grouped participants into one of the three groups, with a designated chair and co-chair/scribe for each group. The roles of the chair and co-chair are to keep the group on task, to summarize groups discussions, to present a summary of the group's views in the plenary session, and to submit a summary by the end of the workshop to the workshop organizers that addresses the three questions in the governing charge (described below).

Each group should begin by making a list of the subtopics that fall under their broad topic. That list can then be edited down to those subtopics that embody core principles that we need to know more about and those for which we can summarize a knowledge base. Group discussions should then proceed to refine the critical areas that need to be refined. We have taken a first stab at listing some subtopics that each group may want to consider as a starting point.

WORKSHOP THEMES:

• **Context dependence of transfer** (Dan Anderson: Chair; Janice Earle: Co-chair/scribe; Miriam Bassok, Robert Bjork, Milt Hakel, Maria Ruiz-Primo, Gerhard Salinger, Dan Schwartz, Guy Van Orden, Brian Vaughn, Dean Zollman). The acquisition of knowledge or a skill does not ensure that the knowledge or skill will be appropriately (or inappropriately) applied to relevant situations. What do we need to know about the contexts of learning or application of learning in order to facilitate transfer?

- Domain dependence (e.g., physics vs biology [principles vs taxonomy]; using what we learn in math class in physics or chemistry class)
- What contexts facilitate transfer? which impede it?
- Are context issues different as a function of cognitive maturity or differentiation within a domain?
- Group work vs. individual in terms of: creativity; divergent thinking; distributed expertise
- Education vs. training (i.e., formal education vs. trade learning)
- Formal versus informal learning (including museums, television, media, games).

• **Conditions for transfer** (Nora Newcombe: Chair; Ken Whang: Co-chair/scribe; John Bransford, Steve Breckler, Suzanne Donovan, Joyce Evans, Rochel Gelman, Drew Gitomer, Joe Redish). What are the conditions that affect the appropriate (or inappropriate) application of knowledge or skill. What do we need to know about the contexts of learning, or application of learning, in order to facilitate transfer?

- Factors that facilitate, and that hinder transfer, including social and group processes
- How can education in K-12 or 13-18 be structured to facilitate transfer, and to promote the integration of knowledge
- Assessment and transfer: How do we assess transfer (especially far transfer)? Can assessment be used as a vehicle to promote transfer (just as tests can be used to drive the teaching and learning)?
- What conditions facilitate transfer from a teaching perspective and from a learning perspective

• **Meta level issues for transfer** (Valerie Reyna: Chair; Elizabeth VanderPutten: co-chair/scribe; Susan Barnett, Ian Beatty, Kevin Dunbar, Bill Gerace, Diane Halpern, David Hammer, Keith Holyoak, Michael Martinez). Metacognitive research indicates that a significant part of effective learning is to be aware of, and in control of, one's own learning. What research base is needed to promote reflective learning? What are the implications for classroom practice?

- Learning to learn and transfer
- Learners' self awareness of learning and transfer
- The role of epistemology in transfer
- Self-assessment as an avenue for transfer
- Facilitating reflection on one's own learning (e.g. via concept mapping, hierarchical organization of knowledge, ...)

GOVERNING CHARGE:

By the end of the workshop, we should have formed answers to the following three organizing questions for each of the three themes:

- 1) What are the primary issues?
- 2) What is the research knowledge base (What do we know?)?
- 3) What do we need to find out (How can we learn more?).

Schedule Transfer Workshop

Thursday 3:00 PM-6:00PM

- 3:00 Welcome and introductions. Mestre, Ramalay, Bradburn & Breckler.
- 3:30-4:15 Launching demonstration highlighting some important transfer issues in learning and teaching in the natural sciences. Mestre
- 4:15-5:00 Goals and structure of the workshop: Issues and agenda. Plenary discussion relating to workshop structure, issues, and agenda. Mestre
- 5:00-6:00 Organizational meeting of the three break-out theme groups. Goal: Reach consensus for plans to reach workshop goals.
- 6:00 Dinner

Friday 8:15 PM-5:00PM

- 8:15-8:30 Coffee
- 8:30-10:30: Breakout groups meet
(10 minute break at 10:15)
- 10:45-11:45 Breakout groups meet
- 11:45-12:00 Breakout groups prepare plenary presentation on the three organizing questions. [Each group presents summary of group consensus in a couple of transparencies.]
- 12:00-1:00 Lunch (on your own)
- 1:00-2:30 Plenary reports. 20 minutes of subgroup presentation, 10 minutes of Q&A
- 1:00-1:30 Group consensus report: Context dependence of transfer
 - 1:30-2:00 Group consensus report: Conditions for transfer
 - 2:00-2:30 Group consensus report: Metacognition
- 2:30-2:45 Break
- 2:45-3:30 Synthesis—relationship between expertise and transfer: Bransford
- 3:30-4:00 Research innovations and opportunities: Breckler & Mestre
- 5:00 Adjourn

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