

**CUNY BRIDGING THE GAP:
COGNITIVE RESEARCH AND INSTRUCTIONAL PRACTICE**

A Cross-Campus Faculty Development Seminar
Hosted by CUNY's Centers for Teaching and Learning
REVISED July 6, 2012

Background:

As part of an effort to help bridge the gap between cognitive science and pedagogy, a subcommittee of CUNY's directors of Centers for Teaching and Learning* spent several weeks examining research-based evidence and theory and applying their collective knowledge to the design of a model seminar to be offered at campuses across CUNY. In a 2011 analysis of CUNY Centers for Teaching and Learning, CTL directors identified several common goals and challenges, including a recommendation to develop new cross-campus faculty learning communities focused on complex teaching and learning problems shared by multiple campuses. Bridging the Gap is a pilot program designed to more fully leverage the collective resources of the University to systematically provide faculty development aimed at bridging the gap between cognitive research and instructional practice— with the ultimate goal of improving student outcomes.

Description:

Bridging the Gap will include a minimum of five two-hour sessions conducted over a semester. Participants will explore key aspects of learning and the research that supports them, including: 1) the role of prior knowledge and misconceptions; 2) deep vs. surface learning, and transitioning from novice to expert learner; and 3) the role of practice and feedback. Common readings will be taken from *How Learning Works: Seven Research-Based Principles for Smart Teaching* (Ambrose, et. al., 2010). Individual seminars may supplement common readings and include additional topics. All participants will have the opportunity to examine their own teaching practices, those of their colleagues, and an array of research-based exemplars. The seminar will support participants in the implementation of new teaching strategies and approaches. Participants will have the opportunity to convene the semester after the seminar to reflect on their learning and the experience of implementing new teaching strategies.

Outcomes:

Faculty participants in Bridging the Gap will:

1. Explore and discuss empirical evidence and research-based theories about the role of prior knowledge, deep vs. surface learning, and the role of practice and feedback, drawing on the multiple disciplines of cognitive science— including psychology, neuroscience, sociology, linguistics and education.
2. Reflect on their own teaching practices in the context of research on how people learn.
3. Identify or design a new pedagogical approach to be implemented in an upcoming course.
4. Implement a new pedagogical approach or strategy the semester after the seminar.
5. Convene with the original seminar cohort the semester after the seminar to discuss and assess its impact.

CTL Directors sponsoring the first seminar cohorts will:

1. Develop the agendas, materials and reading lists for each seminar session, which may vary by campus, using the common text *How Learning Works* and supplemental materials as needed.
2. Recruit faculty participants.
3. Convene seminar sessions during fall 2012.

4. Work with colleagues to develop assessment strategies.
5. Convene seminar cohort in spring 2013 for discussion and assessment.
6. Work with colleagues to assess, refine and expand seminar offerings and impact.

Evaluation:

The CTL Subcommittee on Seminar Planning will develop assessment strategies on multiple levels, taking into consideration a framework which moves from easiest level of assessment to most difficult and including mechanisms to assess:

1. participation: number, characteristics and expectations of attendees;
2. reaction to seminar: degree of participation, interest and satisfaction;
3. understanding/knowledge of the key cognitive science concepts in the seminar: changes in knowledge, attitudes and skills;
4. application of the key concepts via use of strategies, instructional practices, and/or curriculum design: changes in teaching practice, classroom environment and student outcomes.

The pilot campuses will use existing or modified instruments to assess participation and satisfaction. A common assessment instrument will be designed to assess participant's prior knowledge of key concepts (a minimum of two of the three common concepts across all campuses); this will be a brief survey implemented in individual sessions across campuses. Additionally, a common assessment instrument will be designed to assess the knowledge/ understanding and application of key concepts, for use across the participating campuses.

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