

Call for Participation

LearnLab's Annual Learning Science Workshop

Use of Technology Toward Enhancing Achievement and Equity in the 21st Century

August 4-5

Carnegie Mellon University

Pittsburgh PA

Applications Due June 15, 2012

No Cost To Attend

Overview

LearnLab, an NSF Science of Learning Center (SLC) at Carnegie Mellon and the University of Pittsburgh, has an exciting summer research opportunity available to early career researchers in the fields of psychology, education, computer science, human-computer interfaces and language technologies.

The workshop is targeted to senior graduate students, post-docs and early career faculty. The workshop seeks broad participation, including members of underrepresented groups as defined by NSF (African American, Hispanic, Native American) who may be considering a research or faculty position in the learning sciences.

This two-day workshop immediately precedes the LearnLab Summer School (www.learnlab.org/opportunities/summer/). Our research theme is the *use of technology for enhancing achievement and equity in the 21st Century*, specifically these five areas:

- **Enhancing Achievement through Educational Technology and Data Mining.** Using domain modeling, and large datasets to discover when learning occurs and to provide scaffolding for struggling students. See www.learnlab.org/research/wiki/index.php/Computational_Modeling_and_Data_Mining.
- **21st Century Skills, Dispositions, and Opportunities.** Re-examining the goals of education and assessment and considering transformative changes in how and where learning occurs.
- **Opening Classroom Discourse.** Studying how classroom talk contributes to domain learning and supports equity of learning opportunity. See LearnLab's Social-

Communicative Factors thrust

www.learnlab.org/research/wiki/index.php/Social_and_Communicative_Factors_in_Learning.

- **Course-Situated Research.** Running principle-testing experiments while navigating the complex waters of real-world classrooms. See www.learnlab.org/research/wiki/index.php/In_vivo_experiment.
- **Motivation Interventions for Learning.** Implementing theory based motivational interventions to target at risk populations to improve robust student learning.

The substantive focus of the workshop is the use of current and emerging technologies to enhance achievement and equity at all levels of learning. Activities will include demonstrations of the diverse set of ongoing learning sciences research projects at LearnLab, and poster presentations or talks by participants. Participants will also meet with LearnLab faculty in research groups and various informal settings. We will provide information about becoming a part of the Carnegie Mellon or University of Pittsburgh learning science community.

In addition to these substantive themes, the workshop will provide participants with opportunities for professional development and the chance to gain a better understanding of the academic career ladder. These include mentoring that focuses on skills, strategies and "insider information" for career paths. Sessions will include senior faculty discussing the tenure and promotion process, launching a research program, professionalism, and a detailed session on proposal writing. There is no cost to attend this workshop

We are very pleased to announce that the workshop will have two distinguished keynote speakers:

Louis Gomez is the MacArthur Chair in Digital Media and Learning at UCLA's Graduate School of Education & Information Studies. Dr. Gomez is well known for his collaborative research with urban communities, including bringing computing and networking technologies into traditionally underserved schools to support instruction.

Janet Kolodner is program officer for NSF's Cyberlearning Program and Regents Professor in the College of Computing at Georgia Institute of Technology. Professor Kolodner is well known for her research on technology mediated learning and AI applications to education. She is founding Editor in Chief of the *Journal of the Learning Sciences* and a founder of the International Society for the Learning Sciences.

About LearnLab

LearnLab is funded by the National Science Foundation (award number SBE-0836012). Our center leverages cognitive theory and computational modeling to identify the instructional conditions that cause robust student learning. Our researchers study [robust learning](#) by conducting [in vivo experiments](#) in math, science and language courses. We also support collaborative primary and secondary analysis of learning data through our open data repository [LearnLab DataShop](#), which provides data import and export features as well as advanced visualization, statistical, and data mining tools.

To learn more about our cognitive science theoretical framework, read our [Knowledge-Learning-Instruction Framework](#).

The results of our research are collected in our [theoretical wiki](#) which currently has over 400 pages. It also includes a list of [principles of learning](#) which are supported by learning science research. The wiki is open and freely editable, and we invite you to learn more and contribute.

Application Process

Applicants should send their CV, a proposed presentation title and abstract, and a brief statement describing their research interests and future plans to Jo Bodnar (jobodnar@cs.cmu.edu) by June 15, 2012. Please use the subject ***Application for LearnLab Summer Workshop 2012***. Upon acceptance, we will let you know if you have been selected for a talk or poster presentation. If you would like to request travel assistance for attending the workshop, please additionally have a reference send a letter of recommendation to Jo Bodnar.

Costs

There is no registration fee for this workshop. However, attendance is limited so early applications are encouraged. Scholarships for travel are available. Scholarships will be awarded based on your application, including your research interests, future plans, and optional recommendation letter.

Important Dates

- June 15 Application Deadline
- June 29 Notification of Acceptance
- August 4-5 Workshop held at Carnegie Mellon University in Pittsburgh