

Joshua A. Danish

Learning Sciences Program, School of Education
Indiana University, Bloomington
201 North Rose Ave
Bloomington, IN 47405
Phone: (812) 856-8330
Email: jdaniel@jhu.edu
Website: <http://www.joshuadanish.com>

APPOINTMENTS

2009-present **Indiana University, Bloomington, IN**
Assistant Professor

EDUCATION

2009 **University of California, Los Angeles**
Ph.D., Psychological Studies in Education
Graduate School of Education and Information Studies

2005 **University of California, Los Angeles**
M.A., Psychological Studies in Education
Graduate School of Education and Information Sciences

1997 **Johns Hopkins University**
B.S., Computer Science

GRANTS

PI, Proffitt Endowment Faculty Support Grant – School of Education, Indiana University

2011-2012 *Expanding Explorations of Complexity Into Informal Spaces* (Award amount: \$19,000)

iPad Faculty Learning Community – Indiana University

2010-2011 *Using the iPad to Support Representation in Graduate Seminars* (Award amount: \$750)

I was awarded an iPad and funds to support exploratory studies aimed at leveraging the iPad in my teaching. As part of this program I am also expected to work with cross-departmental collaborators throughout the year to brainstorm best practices.

PI, Faculty Research Support Program (FRSP) Grant – Indiana University

2010-2011 *Representational Practices in Science and Language Arts: What's the Difference and Why* (Award amount: \$55,361)

This grant application was co-authored with Kylie Pepler. This study aims to understand the different practices that children bring to creating and evaluating representations as early as first and second grade.

PI, Proffitt Endowment Faculty Support Grant – School of Education, Indiana University

2010-2011 *Harnessing Kindergarten and First Grade Students' Representational Activities to Support Science Learning* (Award amount: \$17,993)

This grant builds upon my earlier work studying young children's representational practices in order to develop and test a new intervention designed to support students in engaging in more critical and reflective representational practices in science class.

Co-Author, New IDEA Grant - School of Education, Indiana University

2009-2010 *Development and Implementation of a New Online Certificate Program in Learning Sciences and New Digital Media and Technology*

I co-authored this proposal with Daniel Hickey and Kylie Pepler (Award amount: \$75,000).

The online certificate program proposed in this grant will be unique in that a new web-based hub will be created to foster learning and collaboration across online courses, and even after the courses have ended. In addition to co-authoring this grant I will be responsible for developing and teaching one of the flagship courses.

Co-PI NSF Grant - Graduate School of Education and Information Studies, UCLA

2007-2009 *Semiotic Pivots and Activity Spaces for Elementary Science (SPASES)*

Co-authored this NSF-funded grant proposal with Noel Enyedy (Award ID: 0733218; Award amount: \$285,000). I played a central role in designing and developing the project, which takes advantage of sensing technologies to support k-1 students learning about physical science concepts. The SPASES project made use of play—a developmental strength of young children—to enable students to interact with and simulate force and motion concepts. The sensing technology allowed the computer to track students' physical actions and respond with information on a shared display. Publications regarding our findings are currently in preparation.

PUBLICATIONS

Danish, J. A., Pepler, K., Phelps, D., & Washington, D. (2011). Life in the Hive: Supporting Inquiry into Complexity Within the Zone of Proximal Development. *Journal of Science Education and Technology*.

Enyedy, N., **Danish, J. A.,** & Fields, D. (2011). Negotiating the “Relevant” in Culturally Relevant Mathematics. *Canadian Journal for Science, Mathematics, and Technology Education* 11(3).

Enyedy, N., **Danish, J. A.,** Delacruz, G., Kumar, M., & Gentile, S. (2011). Play and Augmented Reality in Learning Physics: The SPASES Project. In G. S. Hans Spada, Naomi Miyake, Nancy Law (Ed.), *Connecting Computer-Supported Collaborative Learning to Policy and Practice: CSCL2011 Conference Proceedings. Volume I — Long Papers* (pp. 216-223). Hong Kong, China: International Society of the Learning Sciences.

Danish, J. A. (in press). Designing Authentic Cross-Class Collaboration By Focusing On Activity. In R. Morgan (Ed.), *Quick Hits Teaching with Technology: Successful Strategies by Award-winning Teachers*. Bloomington IN: Indiana University Press.

Danish, J. A., & Phelps, D. (2010). *Representational Practices by The Numbers: How Kindergarten and First-Grade Students Create, Evaluate, and Modify Their Science Representations.* International Journal of Science Education.

Danish, J. A., & Phelps, D. (2010). *Kindergarten and First-Grade Students' Representational Practices While Creating Storyboards of Honeybees Collecting Nectar.* In K. Gomez, L. Lyons & J. Radinsky (Eds.), *Learning in the Disciplines: Proceedings of the 9th International Conference of the Learning Sciences (ICLS 2010) - Volume 1, Full Papers* (pp. 420-427). Chicago IL: International Society of the Learning Sciences.

Danish, J. A., & Enyedy, N. (2007). *Negotiated Representational Mediators: How Young Children Decide What to Include in Their Science Representations.* Science Education, 91(1), 1-35.

Danish, J. A., & Enyedy, N. (2006). *Unpacking the Mediation of Invented Representations.* In S. Barab, K. Hay & D. Hickey (Eds.), *Proceedings of the 7th international conference on Learning sciences* (pp. 113-119). Bloomington, IN: International Society of the Learning Sciences.

Enyedy, N., Mukhopadhyay, S., & **Danish, J. A. (2006).** *Emergent tensions between statistics education and culturally relevant pedagogies.* In A. Rossman & B. Chance (Eds.), *Proceedings of the Seventh International Conference on Teaching Statistics (ICOTS).* Salvador Brazil: IASE.

Danish, J. A. (Spring, 2006). *A Work of Goodness: When a Simple Vote Reveals Children's Representational Ideas and the Classroom That Helped Produce Them.* CONNECTIONS The quarterly newsletter of the UCLA University Elementary School, 1, 9-12.

Danish, J. A. (2005). *Meta-Representational Competence and its Cultural Mediation in a Kindergarten and First-Grade Science Classroom.* Unpublished Masters Thesis, University of California at Los Angeles, Los Angeles.

PRESENTATIONS

Selected Invited Talks

Danish, J. A. (2012, June). *Design for Activity: A Heuristic Approach to Educational Technology Design.* Keynote talk to be presented at the Emerging Learning Design conference. Montclair, NJ.

- Danish, J. A.** (2011, December). *Inserting the Activity Back Into Technology Design*. Presentation to be given as part of the Rob Kling Center for Social Informatics (RKCSI) Talk Series. Bloomington, IN.
- Danish, J. A., & Saleh, A.** (2011, March). *Pilot Explorations of the iPad to Extend Classroom Collaboration*. Paper presented at the Indiana University iConference, Bloomington IN.
- Danish, J. A.** (2011, February). *Activity Theory as an Instructional Design Heuristic*. Presentation at The Edward C. Moore Symposium on Teaching Excellence. Indianapolis, IN.
- Danish, J. A.** (2010, June). *Extending the Conversation: Using Sakai to Promote Ongoing Reflection and Communication Between and Around Class Sessions*. Teaching With Sakai Innovation Award presentation at the Sakai Conference. Denver, CO.
- Danish, J. A.** (2010, May). *Extending the Conversation*. Invited presentation at the Indiana University Center for Innovative Teaching and Learning Workshop Series. Bloomington, IN.
- Danish, J. A.** (2009, February). *Computational Thinking for Everyone... Even K-1 Students*. Presentations at the Computational Thinking for Everyone Workshop Series. Washington, DC.

Professional Meetings

- Danish, J. A.** (2011). *The Primary Interactive Pathway: An Analytic Tool For Examining and Comparing Students' Representational Activities*. Paper to be presented at the International Society for Cultural and Activity Research.
- Danish, J. A., & Saleh, A.** (2011). *The Primary Interactive Pathway: An Analytic Tool For Examining and Comparing Students' Representational Activities*. Paper presented at the Annual Meeting of the Jean Piaget Society.
- Danish, J. A., Peppler, K., & Phelps, D.** (2011). *BeeSign: Designing to Support Mediated Group Inquiry of Complex Science by Early Elementary Students*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.
- Danish, J. A., & Phelps, D.** (2011). *The Interactional Role of Kindergarten and First Grade Students' Representational Practices*. Paper presented at The Annual Meeting of the American Educational Research Association.

- Danish, J. A.,** Pepler, K., & Phelps, D. (2010). BeeSign: designing to support mediated group inquiry of complex science by early elementary students. Proceedings of the 9th International Conference on Interaction Design and Children (pp. 182-185). Barcelona, Spain: ACM.
- Pepler, K., **Danish, J. A.,** Zaitlen, B., Glosson, D., Jacobs, A., & Phelps, D. (2010). BeeSim: leveraging wearable computers in participatory simulations with young children. Proceedings of the 9th International Conference on Interaction Design and Children, 246-249.
- Danish, J. A.** (2010). The Primary Interactive Pathway: An Analytic Tool For Examining and Comparing Students' Representational Activities. Paper presented at the annual meeting of the American Educational Research Association, Denver CO.
- Enyedy, N., **Danish, J. A.,** & Delacruz, G. (2010). Play and Augmented Reality in Learning Physics: The SPASES project. Paper presented at the annual meeting of the American Educational Research Association, Denver CO,
- Danish, J. A.** (2009). BeeSign: a Design Experiment to Teach Kindergarten and First Grade Students About Honeybees From a Complex Systems Perspective. Paper presented at the annual meeting of the American Educational Research Association.
- Enyedy, N., **Danish, J. A.,** Fields, D., Kao, L., Hart, M., & Mukhopadhyay, S. (2009). Negotiating the "Relevant" in Culturally Relevant Mathematics: The Community Mapping Project. Paper presented at the annual meeting of the American Educational Research Association.
- Danish, J. A.,** & Enyedy, N. (2008). CHAT & Actor Network Theory (ANT) Perspectives on How Kindergarten and First Grade Students Co-Construct Science in Action. Poster presented at the ISCAR.
- Danish, J. A.** (2007). *Latour Goes to Kindergarten: K-1 Classroom Science Examined as a Process of Argumentation Using Inscriptions*. Paper presented at the annual meeting of the American Educational Research Association.
- Danish, J. A.,** & Enyedy, N. (2007). *Agency and Accountability: Two Necessary Components in Science Classrooms Utilizing Invented Representations, and Their Impact Upon Students Activities*. Paper presented at the annual meeting of the American Educational Research Association.

Danish, J. A., & Enyedy, N. (2006). *Negotiated Representational Mediators: An Approach to Metarepresentational Competence Grounded in Practice.* Paper presented at the annual meeting of the American Educational Research Association.

Danish, J. A., & Enyedy, N. (2005). *The Dialectic of Task Based Communities and Communities of Practice.* Paper presented at the International Society for Cultural and Activity Research, Sevilla Spain.

Danish, J. A., & Enyedy, N. (2005). *Mediation of Students' Ideas Through Representational Activities.* Paper presented at the International Society for Cultural and Activity Research, Sevilla Spain.

Enyedy, N., & **Danish, J. A. (2005).** *At the intersection of classroom culture and culturally relevant pedagogy: What students' arguments around maps reveal about how to increase student achievement within our diverse society.* Paper presented at the International Society for Culture and Activity Research, Sevilla Spain.

HONORS AND AWARDS

- 2011 Recipient of the CSCL Best Design Paper Award along with Noel Enyedy, Girlie Delacruz, Melissa Kumar, and Sylvia Gentile
- 2011 Indiana University Trustees Teaching Award
- 2010 Teaching With Sakai Innovation Award (TWSIA), Honorable Mention
- 2007-2008 Spencer Dissertation Fellowship
- 2007-2008 UCLA Dissertation Year Fellowship
- 2005-2007 National Institute of Mental Health (NIMH) pre-doctoral training fellowship
- 2005-2006 Graduate Summer Research Mentorship Program fellowship
- 2003-2004 CONNECT Graduate Student Research Fellowship

PROFESSIONAL MEMBERSHIPS

American Educational Research Association (AERA)
International Society of the Learning Sciences (ISLS)
International Society for Cultural and Activity Research (ISCAR)

PROFESSIONAL ACTIVITIES

- 2011-2012 Co-Chair, AERA SIG Advanced Technologies for Learning (ATL)
- 2011 Reviewer, Sakai Foundation, Teaching With Sakai Innovation Award (TWSIA)
- 2009, 2011 Reviewer, National Science Foundation
- 2009 Invited Panelist, National Academies Workshop: Computational Thinking for Everyone
- 2008, 2009, 2010 Reviewer, Journal of the Learning Sciences
- 2006, 2008, 2010 Reviewer, International Conference for the Learning Sciences (ICLS)
- 2006-present Reviewer, AERA
- 2006 Reviewer, InterActions: UCLA Journal of Education and Information Studies