

Mon-Lin Monica Ko

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Education

- 2007 - 2013 **Ph.D.**, Learning Sciences, *Northwestern University*
Dissertation: Delineating a Multidimensional Practice: Bringing Clarity to the Challenges of Engaging Students in Scientific Practice
Committee: Brian J. Reiser (chair), Miriam G. Sherin, Jim Spillane, Elizabeth A. Davis (University of Michigan)
- 2001 - 2005 **B.A.**, Biology (emphasis in Neurobiology) *Northwestern University*
Thesis: Cross-talk between estrogen and TGF- β pathway and its effects on prostate cancerous and epithelial cells (conducted at Northwestern Feinberg School of Medicine)

Research Experience

- 2014 - present **Visiting Research Assistant Professor**
Learning Sciences Research Institute
University of Illinois at Chicago
- 2016 Designing Next Generation Assessments to Support the
– present Teaching and Learning of Life Science
Betty and Gordon Moore Foundation Grant #4482
- 2016 Assessment Literacy for the Next Generation Science Standards:
– present Developing Teachers' Knowledge and Practices
National Science Foundation EHR-1561550
- 2015 Illinois Math and Science partnerships (I-STEM)
– present Illinois State Board of Education
- 2012 – 2014 **Visiting Research Specialist**
Learning Sciences Research Institute
University of Illinois at Chicago
Reading and Evidence-based Argument in the Disciplines (READI)
Institute of Education Sciences Grant R305F100007
- 2010 – 2013 **Graduate Researcher**
Northwestern University
Supporting Scientific Practices in Elem. and Middle School Classrooms
National Science Foundation DRL-1020316

2008 – 2010 **Doctoral Fellow**
Northwestern University
Center for Curriculum Materials in Science
National Science Foundation ESI-0227557

2006 – 2007 **Teacher design partner**
Camden City Public Schools & Northwestern University
ROLE: Understanding the Connection Between Science Achievement
and Reading Achievement
National Science Foundation REC-0440338

Teaching and Mentorship

Instructor (2010) and **Teaching Assistant** (2008-2009)
New Approaches to Science Teaching: Theory and Practice
Northwestern University School of Education and Social Policy

Professional Development Designer & Facilitator
Project READI: Reading and Evidence-based Argument in Disciplinary Instruction
(2012-2014)
Investigating and Questioning our World Through Science and Technology (IQWST)
(2011)

Mentor
Teach for America (2009-2010); Learning Sciences Program, *Northwestern University* (2008-
2010); InterCity Teaching Corp (ICTC) (2008)

K-12 teaching
Biology and Environmental Science Teacher (2005-2007) *Woodrow Wilson High School*
Camden, New Jersey
Teach for America

Honors and Awards

2012 International Conference of the Learning Sciences (ICLS)
Doctoral Consortium participant
Dissertation Year Fellowship, Northwestern University

2010 Best Student Paper: Honorable Mention
AERA SIG-Learning Sciences and SIG-Advanced Technologies
for Education.

2008-2010 Conference Travel Grants (Northwestern University)

2007-2008 Northwestern University Fellow

2007 Excellence in Teaching Award & Outstanding Team Leader
Woodrow Wilson High School, Camden, NJ

Publications, Conference Presentations & Invited Talks

- Greenleaf, C., Brown, W., Goldman, S.R., & **Ko, M.** (2013). READI for science: Promoting scientific literacy practices through text-based investigations for middle and high school science teachers and students. Washington, D.C.: National Research Council.

Under Review or In Preparation

- **Ko, M.** (in progress) *What Makes for Constructing Explanations? An In-depth Look at the Tensions that Emerge During Explanation Construction*
- **Ko, M.** (revise & re-submit) Problematizing to Support Arguing to Learn. *Journal of Learning Sciences*.

Book Chapters

- **Ko, M.**, Goldman, S.R., Radinsky, J.R., James, K., Hall, A., Popp, J., Bolz, M., George, M. (2016) Looking under the hood: Productive messiness in design for argumentation in science, literature and history. In Svhila V. & Reeve, R. (Eds) *Untold story: Design as Scholarship In the Learning Sciences*. New York, NY: Routledge.

Refereed Conference Proceedings

- **Ko, M.** (2014). Problematizing as Scaffold for Engaging in Scientific Argumentation. In Polman, J. L., Kyza, E. A., O'Neill, D. K., Tabak, I., Penuel, W. R., Jurow, A. S., O'Connor, K., Lee, T., and D'Amico, L. (Eds.). (2014). *Learning and becoming in practice: The International Conference of the Learning Sciences (ICLS) 2014, Volume 1, pg. 54-61*. Boulder, CO: International Society of the Learning Sciences.
- James, K., Goldman, S.R., **Ko, M.**, Greenleaf, C.L., Brown, W. (2014). Multiple-Text Processing in Text-Based Scientific Inquiry. Polman, J. L., Kyza, E. A., O'Neill, D. K., Tabak, I., Penuel, W. R., Jurow, A. S., O'Connor, K., Lee, T., and D'Amico, L. (Eds.). (2014). *Learning and becoming in practice: The International Conference of the Learning Sciences (ICLS) 2014, Volume 3, pg. 1571-1572*. Boulder, CO: International Society of the Learning Sciences.

Refereed Conference Presentations (* In collaboration with teacher partners)

- **Ko, M.**, Goldman, S.R., Greenleaf, C., Brown, W. (2017) Supporting Literacy as Science Practice. Paper to be presented at the National Association for Research in Science Teaching, San Antonio, TX, April 22-17.
- **Ko, M.**, Goldman S.R. (2017) Opportunity to Learn Science: Changing Teacher Practice, Changing Student Outcomes. Poster to be presented at American Education Research Association, San Antonio, Texas, April 27-May 1.
- **Ko, M.**, Fortune, A., Goldman, S.R. (2017) Opportunities and Challenges of Engaging Teachers as Co-designers to Support Reading for Understanding in Science. Poster to be presented at American Education Research Association, San Antonio, Texas, April 27-May 1.

- *Baldwin, P., **Ko, M.** (2015) Teaching Argumentation in an Introductory ESL Science Classroom. Presented at the National Science Teachers' Association conference, Kansas City, MO, December 3-5.
- *McIntyre, K., **Ko, M.** (2015) Reading Informational Text in the Science Classroom to Construct Explanatory Models. Presented at the National Science Teachers' Association conference, Kansas City, MO, December 3-5.
- **Ko, M.**, James, K., Burkett, C., Goldman, S.R., Greenleaf, C.L., Brown, W.R. (2015) *Text-based Inquiry For Scientific Modeling*. Paper presented at National Association of Research in Science Teaching, Chicago, IL, April 11-14.
- **Ko, M.**, James, K., Burkett, C., Goldman, S.R., Greenleaf, C.L., Brown, W.R. (2015) *Re-positioning Texts as Objects of Inquiry and Tools for Science Practice*. Poster presented at American Education Research Association, Chicago, IL, April 16-20.
- Britt, A., Blaum, D., Wallace, P., **Ko, M.**, Goldman, S.R. (2015) *Multiple Representations in Science Learning and Assessment*. Paper presented at American Education Research Association, Chicago, IL, April 16-20.
- **Ko, M.** (2013). *The Use of Students' Everyday and Knowledge and Evidence in Generating Explanations*. Paper presented at National Association of Research in Science Teaching, Rio Grande, Puerto Rico, April 6-9.
- Krist, C., **Ko, M.** (2013) *How Teachers Take Up Students' Everyday Ideas during Investigation*. Paper presented at National Association of Research in Science Teaching, Rio Grande, Puerto Rico, April 6-9.
- Buckingham, B.L.E., & **Ko, M.** (2013) *Using Classroom Discourse to Account for Differences in the Causal Coherency of Written Explanations*. Paper presented at the National Association for Research in Science Teaching, Rio Grande, Puerto Rico, April 6-9.
- **Ko, M.** & Reiser, B.J. (2012). *Delineating a multidimensional practice: Bringing clarity to the challenges of engaging students in scientific practice*. Paper presented at National Association of Research in Science Teaching, Indianapolis, IN, March 25-28.
- **Ko, M.** & Reiser, B.J. (2011) *Understanding scientific practices in action: Understanding Variation in Teachers' Enactments of Scientific Practices in the Classroom*. Poster presented at National Association of Research in Science Teaching, Orlando, FL, April 3-6.
- **Ko, M.** & Reiser, B.J. (2010) *Connections, clarity and logistics: science teacher's enactments of reform-based science curricula*. Paper presented at American Education Research Association, Denver, CO, April 30 – May 4. SIG-LS/ATL Best Student Award – Honorable Mention.

Professional Service

Reviewer	Member
Journals	American Educational Research Association (AERA)
Science Education (2013 – present)	
Conferences	Division C – Learning and Instruction
International Conference of the Learning Sciences	SIG – Learning Sciences
American Educational Research Association	National Association of Research in Science Teaching (NARST)
National Association for Research in Science Teaching	International Society of Learning Sciences (ISLS)