

## KIRSTEN KAMAILE NOELANI MAWYER

Northwestern University  
School of Education and Social Policy  
Department of Learning of Sciences  
2120 Campus Drive  
Evanston, IL 60208-2610  
(847) 467-7406

808 Forest Ave. Apt #1  
Evanston IL, 60202  
(847) 644-7196  
k-mawyer@northwestern.edu

### **Education**

Northwestern University, Evanston, IL

Doctoral candidate in Learning Sciences; Degree expected in summer 2008

Dissertation: *Literacy Strategies in the Science Classroom: The Influence of Beliefs, Knowledge and Goals on Implementation*

Committee: Daniel C. Edelson (Chair); Miriam G. Sherin; Carol D. Lee

Amherst College, Amherst, MA

B.A., *Magna Cum Laude*, 1995 Geology and English Double Major

Thesis: *A Taphonomic History of the Bashi Shell Bed at Elba Dam*

Kamehameha Schools, Honolulu, HI

Academic Honors Diploma

### **Professional Experience**

Teacher, Punahou Academy, Honolulu, HI, 2001-2003 & 1995-1999

Worked in both the Science and English Departments. Developed curriculum for and taught 9<sup>th</sup>-10<sup>th</sup> grade Biology and 9<sup>th</sup>-12<sup>th</sup> grade English. The 9th English grade curriculum focused on helping students to develop speaking, listening, reading and writing skills. The 10th grade English curriculum focused on helping students to develop critical thinking skills. The 11th and 12th English grade electives included Identity & Culture and Land, Legends, and Lore.

Senior Education Media and Project Developer, The Field Museum, Chicago, IL, 1/2000-5/2001

Developed multimedia educational materials for a national audience. Worked with Museum scientists to develop and write K-8th grade curriculum and content for exhibits and electronic-field trips.

### **Research, Scholarship & University Teaching**

#### ***Fellowships and Prizes***

Center for Curriculum Studies in Science Graduate Fellowship, Northwestern University, 2004-2008

University Minority Fellowship, Northwestern University, 2003-2004

Stories in the Land Fellowship, Orion Society, 1998

Summer Curriculum Grant, Punahou Academy, 1998

Learning Fellowship, Punahou Academy, 1996

Sigma Xi Nomination, Amherst College, 1995

Minority Geosciences Student Scholarship, American Geological Institute, 1992-1995

#### ***Courses Taught***

Northwestern University, Evanston, IL

*The New Approaches for Science Teaching: Theory and Practice* (Teaching Assistant): a graduate course offered through the Master in Science Education Program. The course reviews current ideas about reforms in science education and examines approaches to teaching K-12 science as a knowledge-building practice.

*Design of Learning Environments* (Teaching Assistant): a graduate course offered through the Learning Sciences Program for masters and doctoral students. The course provides an overview of theory and practice in the design, enactment, and study of innovative learning environments.

*Teaching Inquiry-Based Science with Technology* (Teaching Assistant): a graduate course offered through the Master in Science Education Program for in-service teachers implementing the *Investigations in Environmental Science* (Edelson, 2005) curriculum.

### ***Publications & Papers***

**Mawyer, K.K.N.**, Johnson, H.J. & Luna, M.J. (in preparation). Approaches to Investigating Science Teachers' Cognitive Resources.

**Mawyer, K.K.N.** & Edelson, D.C. (in preparation). The Influence of Beliefs, Knowledge and Goals on the Implementation of Literacy Strategies in the Science Classroom.

Johnson, H.J. & **Mawyer, K.K.N.** (in preparation). Practice-Based Professional Development: Design Considerations for New and Experienced Users of Curriculum Materials.

Munley, M.E., Eagleton, J. & **Ford, K.K.N.** (2001). <http://www.fmnh.org/projectER> Project E.R. Chicago: The Field Museum.

Munley, M.E., Eagleton, J. & **Ford, K.K.N.** (2000). <http://www.fmnh.org/thesuefiles> TheSue Files. Chicago: The Field Museum.

Munley, M.E., Eagleton, J. & **Ford, K.K.N.** (2000). *Unearthing the Secrets of Sue: The Sue Educators' Guide*. Chicago: The Field Museum.

### ***Conference Presentations***

**Mawyer, K.K.N.** (2007). Literacy Strategies in the Science Classroom: The Influence of Beliefs, Knowledge and Goals on Implementation. Poster presented at the Knowledge Sharing Institute hosted by the Center for Curriculum Materials in Science. Washington D.C.

**Mawyer, K.K.N.** & Edelson, D.C. (2007). A Test Case Study of a Teacher's Participation with Investigations. Paper presented at NARST Annual Meeting. New Orleans, LA.

**Mawyer, K.K.N.** (2006). Beliefs, Decisions and Adaptations. Poster presented at the Knowledge Sharing Institute hosted by the Center for Curriculum Materials in Science. Ann Arbor, MI.

**Mawyer, K.K.N.** (2005). Adaptation of a Reform-Based Science Curriculum. Paper presented at the Learning Sciences Brown Bag Workshop, Evanston, IL.

**Mawyer, K.K.N.** (2005). Recognizing Adaptation in Curricular Enactment. Poster presented at the Knowledge Sharing Institute hosted by the Center for Curriculum Materials in Science. East Lansing, MI.

Slusher, D. & **Mawyer, K.K.N.** (2004). A Study of the Implementation of Looking at the Environment, a Year-Long High School Environmental Curriculum. Poster presented at the Knowledge Sharing Institute hosted by the Center for Curriculum Materials in Science. Evanston, IL.

### ***Research Experience***

Dissertation Research, Northwestern University, 2006-2007

The study examines how teachers use literacy strategies in high school science classrooms as they implement reform-based earth and environmental science curricula. In particular this qualitative comparative case study explores how cognitive resources such as beliefs, knowledge, and goals influence teachers as they make design decisions during planning and enactment of curricula. Data includes extensive teacher interviews and yearlong observations in teachers' classrooms.

Research and Design Project with Daniel C. Edelson, Northwestern University and Barry Fishman, University of Michigan, 2005-2007

Participated in a study examining how online professional development environments contribute to teacher learning, improvements in classroom practice, and improvements in student learning in comparison to face-to-face professional development. Designed workshop content for yearlong online professional development. Facilitated online professional development. Designed and led face-to-face summer professional development workshops.

Research Project with Daniel C. Edelson, Northwestern University, 2004-2005

Conducted a qualitative study examining how science teachers enact a high school environmental science curriculum focusing on how teachers adapted the materials for use in their classroom context.

### ***Additional Professional Activities***

National Association for Research in Science Teaching Reviewer, 2006 & 2007

Peer reviewed proposals submitted to the annual Conference.

Chicago Public School Professional Development Provider, 2004-2006

Developed content for and led five-day summer workshops and monthly PD sessions for teachers using the Investigation in Environmental Science (Edelson, 2005) curriculum at Northwestern University in association with the Chicago Math and Science Initiative.

Curriculum Developer, 2000-2001

Developed content for the Sue Electronic Initiative funded by the Illinois State Board of Education's Museums in the Classroom grant program. Developed content for Field Museum Satellite/Web Broadcasts including: Project Environmental Rescue, The Sue Files, Sue Unveiled, The Dead Sea Scrolls, The Tsavo Lions, and Sue: From the Field to the Field.

Exploratorium Teacher Institute, 1998

Attended a four-week program at the Exploratorium in San Francisco designed to enhance high school Biology curriculum.

Curriculum Developer, 1998-1999

Developed and taught the English curriculum for Land, Legends and Lore an interdisciplinary course connecting Hawaiian ecology and Hawaiian Literature for Punahou Academy.

### **Professional Memberships**

American Educational Research Association

National Association for Research in Science Teaching

### **References**

Daniel C. Edelson, Dissertation Chair  
Associate Professor, Learning Sciences  
School of Education and Social Policy  
Northwestern University  
Email: d-edelson@northwestern.edu  
Ph:(847) 467-1337

Miriam G. Sherin  
Associate Professor, Learning Sciences  
School of Education and Social Policy  
Northwestern University  
Email: msherin@northwestern.edu  
Ph: (847) 467-3990

Brian J. Reiser  
Professor, Learning Sciences  
School of Education and Social Policy  
Northwestern University  
Email: reiser@northwestern.edu  
Phone: (847) 467-2205

Kirsten K. N. Mawyer