

Michele Hollingsworth Koomen, Ph.D
Curriculum Vitae

Education

University of Minnesota, (2001-2006). Doctor of Philosophy, Curriculum and Instruction: Science Education major, Mathematics Education, minor. Title of thesis: *Listening to their voices: The essence of the experience of special and regular education students as they learn monarch, Danaus plexippus, biology and ecology.*

Fresno Pacific University (1997-1999). Master of Arts. Science and Mathematics Education.

Minnesota State University, Mankato, MN (1991-1993). Undergraduate minors in chemistry and biology.

California State University, Northridge, CA (1984-1985). Teacher certification.

California State University, Northridge, CA (1975-1979). Bachelor of Arts. Liberal studies.

Professional Experience

Gustavus Adolphus College, St. Peter, Minnesota. Assistant Professor: Department of Education. (2000 to present). Courses taught: [EDU 371: Elementary Science Methods and Materials](#); [EDU 373: Elementary Math Methods and Material](#); [EDU 246/247: Science for Elementary Educators, 1 & 2](#); [EDU 241: Educational Technology](#); [EDU 385: Interdisciplinary Teaching and Learning Curriculum](#); [EDU 248: Science Connections](#). [CUR 260: The Natural World](#).

Fresno, California (1998-2006): Activities Integrating Science and Math (AIMS) trainer at various locations throughout the United States.

Saint Joseph- Saint John's School, Mankato, MN. Kindergarten teacher (1988 to 2000).

Research

April 2009. Paper presentation at the annual meeting of NARST (National Association for the Research on Science Teaching). The paper, titled, *Understanding the process of applying inquiry teaching methods in elementary classrooms* was initiated by the work that I do at the University of Minnesota with Karen Oberhauser.

Descriptive and Phenomenological Inquiry (in progress): Qualitative research methods. I am currently analyzing interview texts, field notes and course

artifacts to understand the process of becoming a more contemplative novice educator.

Cognitive load study: (2008-2009), Mixed method study of cognitive load and pre-service teachers titled (preliminarily): *Using theory to explain challenges of novice teachers*. We have completed our data gathering efforts and are now processing the data (interviews and surveys) with analysis of data targeted for the end of summer 2009.

El Paso, Texas (Summer 2007): Qualitative study describing the experiences in schooling of ten native Spanish speaking Latino students, several of whom are recent immigrants to the United States.

University of MN (2007 to present): Impact of Professional Development on practicing K-12 teachers. Qualitative study of ten in-service teachers who completed one of four graduate level courses in insect ecology. Study seeks to understand their implementation of inquiry learning into their classrooms.

Dissertation Research: (Fall 2005): Phenomenological research study examining the experience of special education and regular education students as they studied a life science unit featuring monarch biology and ecology in three middle school classrooms in an urban Midwestern public school district.

Teacher Research Network (TRN) and SCI/MATH^{MN} (2000-2005): qualitative study of new science and mathematics teacher practices, content knowledge, and professional development from nine instructors of higher education in Minnesota, 2000- 2005. Data collection included: interviews, surveys, observations, and field notes. Leadership role in analysis of data from all mathematics and science elementary teacher participants.

Professional Activities

Department of Education, Minnesota. (2008-2009). Member of Minnesota Academic Science Standards Revisions Committee, strand, the *Nature of Science and Engineering*.

University of Minnesota: College of Fisheries, Wildlife and Conservation Biology (Summer 2005-2009): Lead instructor for *Insect Ecology*: A summer course for teachers.

National Youth Sports Program (NYSP) (2005-2006): Science Coordinator. Coordinated field science experiences for 269 youth participants in insect ecology and wildlife gardening for 5 weeks.

Gustavus Adolphus College, *Two Days of Math Learning and Teaching Workshop for Teachers of Grades K-5*. (Summer 2002).

Gustavus Adolphus College, led a team from nine institutions of higher education in the state of Minnesota in a study and review of the science content that is necessary and appropriate for the undergraduate student who will be a future educators (2001).

Publications

Exploring Math Series (2001). Author of high interest series of math books that explores various mathematical topics with simple text, photographs, and illustrations. Each book provides a hands-on activity that supports the math content area. Mankato, Minnesota: Capstone Press. Titles of the series are:

Patterns: What Comes Next?

- *Size: Many Ways to Measure*
- *Sets: Sorting Into Groups*
- *Numbers: Counting it Up*
- *Shapes: Discovering Flats and Solids*
- *Fractions: Making Fair Shares.*

Conference Proceedings (Refereed)

Koomen, M. J. (2009). Understanding the process of applying inquiry teaching methods in elementary classrooms. *National Association for Research in Science Teaching*. Garden Grove, CA, April.

Koomen, M. J. (2009). The Practice of Inquiry Within a Small Group of Hmong Youth. *National Association for Research in Science Teaching*. Garden Grove, CA, April.

Koomen, M. J. (2008). Science for all and inclusion: Learning from Dion. *National Association for Research in Science Teaching*, Baltimore, MD, April.

Koomen, M. J. (2008). Listening to the Voices of Linguistically and Culturally Diverse Students as They Navigate Through Schooling. *American Educational Research Association*, New York, March.

Koomen, M. J. (2008). Science for all and inclusion: Learning from Dion. *Association of Science Teacher Educators*, St. Louis, Missouri, January.

Koomen, M. J. (2007). The Essence of the Experience of Special Education and Regular Education Seventh Grade Students as They Learn Insect Biology and Ecology, *Association of Science Teacher Educators*, Clearwater, Florida, January

Koomen, M. J. & Hartshorn, L. (2006). Longitudinal Study of Beginning Teachers:

Emerging Themes. *Association of Science Teacher Educators*, Portland, Oregon, January.

Koomen, M. J. & Swanson, A. (2006). Student Teaching at Wolf Ridge ELC: a Collaborative Effort of Gustavus Adolphus College Department of Education and Wolf Ridge Environmental Learning Center. *North American Association of Environmental Education*, Minneapolis, MN, October.

Koomen, M. J. (2005). Meeting the Needs of the Diverse Life Science Student in Middle Schools. *MN Science Teachers Association*, October.

Koomen, M. J. (2004). Helping Children to Master Basic Facts. *National Council of Teachers of Mathematics National meeting*, Philadelphia, PA, April.

Koomen, M. J. (2003). How Do You Develop Guided Inquiry in the Elementary Classroom? *Regional Meeting of National Science Teachers Association*, Minneapolis, Minnesota, October.

Koomen, M. J. (2002). Helping Children to Master Basic Facts. *National Council of Teachers of Mathematics National Convention*, Las Vegas, Nevada, April.

Koomen, M. J. (2002). How Do You Develop Inquiry in the Elementary Classroom? *National Science Teachers Association National Convention*, San Diego, California, April.

Koomen, M. J. (2002). Science Content Course Study Results, *SCI/MATH MN Transforming Teacher Education*, Brainerd, Minnesota, April.

Koomen, M. J. (2001). What is Guided Inquiry? *Minnesota Science Teachers Association*, Minneapolis, Minnesota, October.

Koomen, M. J. (2001). Geometry and Spatial Sense in the K-5 classroom. *National Council of Teachers of Mathematics National Convention*, Orlando, Florida, April.

Koomen, M. J. (2000). Measurement in the K-2 Classroom. *National Council of Teachers of Mathematics National Convention*, Chicago, Illinois, April.

Koomen, M. J. (1999). Data Collection and Analysis in K-6 Classrooms. *National Council of Teachers of Mathematics National Convention*, San Francisco, CA, April.

Koomen, M. J. (1998). Geometry and Spatial Sense in the K-5 Classroom. *National Council of Teachers of Mathematics National Convention*, Washington DC, April.

Manuscripts under Review

Koomen, M. J. (2008). Science for all and inclusion: Learning from Dion. *Science Education*.

Manuscript in preparation (Working Title)

Koomen, M. J. (in prep). *Understanding the process of applying inquiry teaching methods in elementary classrooms*.

Koomen, M. J. (in prep). *Phenomenological inquiry and reflection with preservice teacher candidates*.

Koomen, M. J. (in prep). Listening to the Voices of Linguistically and Culturally Diverse Students as They Navigate Through Schooling.

Koomen, M. J. (in prep) The Essence of the Experience of Special Education and Regular Education Seventh Grade Students as They Learn Insect Biology and Ecology. *Exceptional Children*.

Moos, Pitton & Koomen (in prep), *Using theory to explain challenges of novice teachers*.

Grants

Minnesota Office of Higher Education, Improving Teacher Quality (ITQ), 2007-2009

Project Title: Monarch and More: Insect Ecology for Elementary Teachers

Project Directors: Karen Oberhauser, University of Minnesota and Michele Koomen, GAC

Fund: \$46, 560

Gustavus Adolphus College, Research, Scholarship and Creativity Grant (2007)

Project Title: Listening to the voices of immigrant children.

Project Directors: Michele Koomen

Fund: \$2,200

Gustavus Adolphus College, Research, Scholarship and Creativity Grant (2004)

Project Title: Listening to the voices of special and regular education students in science.

Project Directors: Michele Koomen

Fund: \$2,200

Editing, Critiquing, Reviewing for Journals and Conferences

Conference Proposal Reviewer, *Association of Science Teacher Educators*, 2005-Present

National and State Service

Chair of Inclusion Forum ASTE (Association for Science Teacher Education): 2007-present.

Ethics and Equity Community Member of NARST (National Association for Research in Science Teaching) and candidate for appointment.

Community Service

St. Peter Schools Math Curriculum Study Group 2007.

St. Peter Schools Science Curriculum Study Group 2001.

Honors and Awards

Doctoral Student Fellowship (2003). University of Minnesota, Curriculum and Instruction.

American Association for the Advancement of Science (AAAS): *Size: Many Ways to Measure* selected as one of the best mathematics books for children published in 2001.

Evangelical Lutheran College Association Study Grant for Continuing Education (2001 – 2002).

Woodrow Wilson Fellow (Summer 2001) in Environmental Science at Princeton University, Princeton, New Jersey.

AIMS Scholarship (1996-1999). Fresno Pacific University, CA

Delta Kappa Gamma Scholarship (1985). CSUN, CA