Mary E. Baker, Ph.D.

Assistant Professor
Department of Teaching & Learning
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EDUCATIONAL BACKGROUND:

2004 **Doctor of Philosophy –** Major: Higher Education, Minor: Research Statistics, Cognate: Mathematics Education, University of North Dakota. Dissertation: *Mathematical Problem Solving Skills in Undergraduate Preservice Teacher Education Students.*

1998 **Masters of Education –** Major: Teaching & Teacher Education (Curriculum & Instruction), University of Arizona. Thesis: *The Effects on Academic Achievement of Increasing Student Awareness of and Involvement in the Grading Process.*

1995 **Bachelors of Art –** Major: Elementary Education, Area of Emphasis: Math & Science, Northwest Nazarene College.

1988 **Bachelors of Science –** Major: Information Systems Analysis & Design, Computer Science, University of Redlands.

1983 **Associates of Arts –** Major: Liberal Arts, Cerro Coso Community College.

TEACHING CERTIFICATES:

2002 **Minnesota** – Grades 1 through 6
2001 **North Dakota** – Grades 1 through 8
1998 **Texas** – Grades 1 through 8
1996 **Arizona** – Grades K through 8
1995 **Idaho** – Grades K through 8

PROFESSIONAL EXPERIENCE:

2004 – PRESENT **Assistant Professor** – Mathematics Education, University of North Dakota, Department of Teaching & Learning.

2004 **Instructor –** Mathematics Education, University of North Dakota, Department of Teaching & Learning, at Cankdeska Cikana Community College, Ft. Totten, North Dakota.

2002 – 2004 **Graduate Teaching Assistant –** University of North Dakota, Department of Teaching & Learning.

1995 – 2002 **Elementary & Middle School Teacher**
Warren Alvarado Oslo Elementary School, Warren, MN – Substitute Teacher, 2001-2002.

	Marfa Elementary School, Marfa, TX – 2nd Grade Teacher (all subjects) & Computer Teacher (K through 8th Grade), 1999-2001.
	Sierra Vista Public Schools, Sierra Vista, AZ – 1st Grade Teacher (all subjects) & 6th Grade Science & Language Arts Teacher, 1996-1998.
	Jefferson Elementary School, Jerome, ID – 3rd Grade Teacher (all subjects), 1995-1996.
1992 – 1993	**Instructor/Trainer** – College of Southern Idaho/Unibase, Twin Falls, ID.
1991 – 1992	**Systems Analyst & Programmer** – Agri Care Industries, Filer, ID.

COURSES TAUGHT AT UND:

T&L 440	Math in the Elementary School (TEAM)
T&L 443	Math for Primary Grades
T&L 444	Math for Intermediate Grades
T&L 522	Mathematics in the Elementary School

RESEARCH INTERESTS:

- Assessment and instruction of mathematics in early childhood, elementary, middle, and high school
- Professional development of pre- and in-service teachers
- Effective and efficient uses of technology in the elementary and middle school years

ACADEMIC HONORS/AWARDS:

1995 – Present	Phi Delta Lambda (academic achievement honors society)
1997 – Present	Phi Delta Kappa (educators honors society)
1999 – 2000	*Teacher of the Year* – Marfa Parent Teacher Organization
1995	Summa Cum Laude, Valedictorian, Northwest Nazarene University
1981	*Who's Who Among Students in American High Schools*

SERVICE:

NATIONAL/INTERNATIONAL:

2005 – Present	Reviewer for *American Education Research Journal, Social and Institutional Analysis Section (AERJ/SIA)*
2006 – Present	Reviewer for Pearson/Allyn & Bacon Publishers & Pearson/Merrill Prentice Hall Publishers (mathematics education textbook reviews).

STATE/LOCAL:

2005 – Present	Reviewer for *The Journal of Natural Inquiry and Reflective Practice*
2005 – Present	Reviewer for *The North Dakota Council of Teachers of Mathematics Journal*
2005 – Present	Historian, North Dakota Council of Teachers of Mathematics

PRESENTATIONS:

Guy, M., Baker, M., & Holen, J. (2003). "Partnering Teachers and Teacher Candidates to Create Technology-Supported Authentic Learning Tasks." Brief Paper presented at the Society for Information Technology & Teacher Education international conference, Albuquerque, NM, March 2003.

Guy, M., Baker, M., Glessner, M., Reinhardt, J., & Grabe, C. (2003). "Taking the Plunge: Infusing Technology into Field-Based Courses." Concurrent Session presented at the Beyond Boundaries regional conference, Grand Forks, ND, October 2003.

Baker, M. (2004). "Teaching Measurement to the Primary Student." Session presentation for the North Dakota Council of Teachers of Mathematics Spring Conference, Grand Forks, ND, March 2004.

Baker, M., Holen, J., & Babiuk, G. (2004). "Embedding Technology in Teacher Preparation Courses Through the Use of the T-SALT Model." Brief Paper presented at the Society for Information Technology & Teacher Education international conference, Atlanta, GA, March 2004.

Yearwood, D., Holdman, L. & Baker, M. (2004). "Pre-Service Teachers & Technology in the Classroom: How Well Are Their Students Learning?" Concurrent Session presented at the Beyond Boundaries regional conference, Grand Forks, ND, September 23, 2004.

Baker, M. (2004). "Strategies for Success in Mathematics." NCA workshop session, Grand Forks, ND, December 16, 2004.

Baker, M. (2005). "Measurement – Teaching for Understanding: Weight, Volume, Length, and Area." North Dakota Council of Teachers of Mathematics, Jamestown, ND, April 1, 2005.

Baker, M. (2005). "Cows Will Fly: Likelihood, Chance, Possible – Probability!" North Dakota Council of Teachers of Mathematics, Jamestown, ND, April 2, 2005.

Baker, M. (2005). "Mathematics Through Children's Literature." North Dakota Reading Association Conference, Grand Forks, ND, April 16, 2005.

Baker, M. (2005). "The Evolution of a PT3 Grant: Course Dependence to Course Independence." Society for Information Technology & Teacher Education international conference, Phoenix, AZ, March 3, 2005.

REFEREED PUBLICATIONS:

Guy, M., Baker, M., & Holen, J. (2003). "Partnering Teachers and Teacher Candidates to Create Technology-Supported Authentic Learning Tasks." Published proceedings of the Society for Information Technology & Teacher Education international conference, Albuquerque, NM, March 2003.

Guy, M., Li, Q., Baker, M. & Holen, J. (2003). "Partnering Prospective and Practicing Teachers to Create Technology-Supported Learning Opportunities for Students." Published proceedings of the American Educational Research Association conference, Chicago, IL, April, 2003.

Guy, M., Baker, M., Glessner, M., Reinhardt, J., & Grabe, C. (2003). "Taking the Plunge: Infusing Technology into Field-Based Courses." Published proceedings of the Beyond Boundaries regional conference, Grand Forks, ND, October 24, 2003.

Baker, M. & Holen, J. (2004). "Embedding Technology in Teacher Preparation Courses Through the Use of the T-SALT Model." Published proceedings of the Society for Information Technology & Teacher Education international conference, Atlanta, GA, March 2004.

Baker, M. (2005). "The Evolution of a PT3 Grant: Course Dependence to Course Independence." Brief Paper proposal submitted in October 2004 for the Society for Information Technology & Teacher Education international conference, Phoenix, AZ, March 1-5, 2005, would be published in proceedings of conference.

Li, Q., Guy, M., Baker, M. & Holen, J. (2006). "Partnering Prospective and Practicing Teachers to Create Technology-Supported Learning Opportunities for Students." *Journal of Educational Technology Systems, 34 (4).*

PROFESSIONAL AFFILIATIONS:

National Council of Teachers of Mathematics
North Dakota Council of Teachers of Mathematics
Mathematical Association of America
Phi Delta Kappa
Phi Delta Lambda
Society for Information Technology & Teacher Education
Association for the Advancement of Computing in Education