

Judith A. Morrison

Department of Teaching and Learning
Washington State University Tri-Cities
2710 University Drive
Richland, Washington 99352
(509) 372-7176
jmorriso@tricity.wsu.edu

EDUCATION

- | | | |
|-----------------------|------|--|
| Ph.D. | 1999 | Oregon State University, Corvallis, Oregon
Science Education/Integrated Science
Dissertation title: Investigating Teachers' Understanding and Diagnosis of Students' Preconceptions in the Secondary Science Classroom |
| M.S. | 1991 | Oregon State University, Corvallis, Oregon
Science Education |
| Teacher Certification | 1983 | Eastern Washington University, Cheney, Washington
Biology, Chemistry |
| B.A. | 1979 | University of Montana, Missoula, Montana
Zoology |

PROFESSIONAL WORK EXPERIENCE

- | | |
|---------------------------|---|
| August, 2003 –present | Assistant Professor , Washington State University Tri-Cities, tenure track faculty. Science education and secondary education coordinator. Responsibilities include teaching science methods, research courses, and designing and coordinating the secondary education program. |
| August, 2001- May, 2003 | Assistant Professor , Washington State University Tri-Cities, temporary faculty, science education. Responsibilities include teaching K-8 science methods, learning theory, and research courses. |
| October, 2000- July, 2001 | Math/Science Specialist , Educational Service District 123, Pasco, WA. Responsibilities included providing support for inservice math and science teachers and establishing preservice/inservice teacher mentorships through a collaboration with WSU-TC faculty. Specific foci: performance assessments, state standards, and teacher enhancement |

- 2000, Fall Term **Adjunct Faculty, Science Education**, Washington State University-TriCities. Course taught: Teaching and Learning 371: Teaching Elementary Science.
- 1999, Fall Term **Adjunct Faculty, Biology**, Columbia Basin College. Course taught: Science 110: Natural History of the Columbia Basin.
- 1999, 2000, 2001 Summer **Adjunct Faculty, Science Education**, Washington State University TriCities. Course taught: Teaching and Learning 574: Science for All.
- 1993-1996 **Graduate Teaching Assistant, Science Education**, Oregon State University. Responsibilities included teaching courses in pedagogy and microteaching (methods). Additional responsibilities included supervision of graduate level teaching interns.
- 1993 –1996 **Summer Term Instructor, Science Education**, Oregon State University. Responsibilities included teaching courses to preservice and inservice teachers in integrating science and math, pedagogy, and assessment and evaluation.
- 1994, 1995-1996 **Curriculum Evaluator**, Lawrence Livermore National Laboratory. Responsibilities included review and evaluation of the elementary, middle, and high school curriculum “Global Climate Change” (1994), evaluation of the Biotechnology Education Project (1995-96), and travel to LLNL to work with curriculum writers.
- 1991-1993 **Graduate Research Assistant, Science Education**, Oregon State University. Responsibilities included researching, writing, and editing the integrated science and math curriculum “Earth, Air, Fire and Water.”
- 1983-1990 **Science Teacher**, Shadle Park HS, Spokane, WA, Prince George College, Prince George, BC, Queen Margaret’s School, Duncan, BC, and D. P. Todd HS, Prince George, BC. Responsibilities included teaching grade 11 and 12 Chemistry, Organic Chemistry, Grade 12 Biology, General Science grades 7- 10, Physical Science, and grade 8 Math.

PUBLICATIONS IN REFEREED JOURNALS

Akerson, V., Roth McDuffie, A., & Morrison, J. (in press). Performance assessment tasks as a stimulus for collaboration among preservice and inservice teachers. *Practical Experience and Education Research Matter* (A joint publication from the National Science Teacher Association and the National Association for Research in Science Teaching).

Morrison, J.A. (2003). Science teachers’ diagnosis and understanding of students’ preconceptions. *Science Education* 87(6), 849-867.

Roth McDuffie, A., Akerson, V., & Morrison, J. (2003). Designing and implementing meaningful field-based experiences for mathematics methods courses: A theoretical framework and a program description. *The Mathematics Educator*, 13 (1), 22-32.

Morrison, J. A., Roth McDuffie, A., & Akerson, V. (under review). Preservice teachers' development and implementation of science performance assessment tasks. *International Journal of Science and Mathematics Education*.

Akerson, V. L., Morrison, J. A., & Roth McDuffie, A. (under review). Preservice elementary teachers' retention of improved views of nature of science after participating in an explicit-reflective science methods course. *Journal of Research in Science Teaching*.

Morrison, J. A., Roth McDuffie, A., & Akerson, V. (under review). Collaborative efforts to situate preservice learning. *Teaching and Teacher Education*.

OTHER PUBLICATIONS

Morrison, J. A. (2003) *The moon's phases and lunar eclipses: An inquiry lesson*. In Proceedings of the 15th Annual Education Seminar, Washington State University College of Education and Nishinomiya Education Board.

Morrison, J. A. (2002). *Preparing preservice and inservice teachers to teach inquiry science*. In Proceedings of the 14th Annual Education Seminar, Washington State University College of Education and Nishinomiya Education Board. 39-41.

Morrison, J. A., Roth McDuffie, A., & Akerson, V. (2002) *A focus for collaboration: Developing and implementing science and mathematics performance assessment tasks*. In Proceedings of the 2002 International Annual Meeting of the Association for the Education of Teachers in Science, Charlotte, NC: Association for the Educators of Teachers in Science

Roth McDuffie, A., Akerson, V., & Morrison, J. (2002). *Designing and implementing meaningful field-based experiences for mathematics methods courses: A program description*. In Proceedings of the 2001 Association of Mathematics Teacher Educators Annual Conference, Costa Mesa, CA: Association of Mathematics Teacher Educators.

Akerson, V., Roth McDuffie, A., & Morrison, J. (2001). *The bridges research project: Pairing preservice and inservice teachers for professional development in science, math, and literacy using performance assessment tasks as contexts*. In Proceedings of the 2001 International Annual Meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA: Association for the Educators of Teachers in Science.

RESEARCH PRESENTATIONS

(* denotes my graduate students)

Morrison, J. A., & Estes, J. (2004, April). *Using scientists and real-world scenarios in professional development for middle school science teachers*. Paper accepted for presentation at the Annual Meeting of the American Educational Research Association, San Diego, CA.

Morrison, J. A. (2004, April). *Using science notebooks to promote preservice teachers' understanding of formative assessment*. Paper accepted for presentation at the Annual Meeting of the National Association for Research in Science Teaching, Vancouver, BC.

Morrison, J., Akerson, V., Hand, B., Black, K., Yore, L., Butler, M. (2004, January). *Students' writing in science*. Panel presented at the annual International Meeting of the Association for the Education of Teachers in Science. Nashville, TN.

Morrison, J.A., & Aram, R. J.(2004, January). *Using science notebooks as an assessment tool in science methods courses*. Paper presented at the annual International Meeting of the Association for the Education of Teachers in Science. Nashville, TN.

Akerson, V., Morrison, J., & Roth McDuffie, A. (2004, January). *Preservice elementary teachers' retention of improved views of nature of science after participating in an explicit-reflective science methods course*. Paper presented at the annual International Meeting of the Association for the Education of Teachers in Science. Nashville, TN

Morrison, J. A., *Doty, M., *Hendrickson, L., *Hood, P., & *Redfield, W. (2003 October). *Action research on science teaching in the K-8 classroom*. Presentation at the annual conference of the Washington Science Teachers' Association, Pullman, WA.

Akerson, V., Morrison, J., & Roth McDuffie, A. (2003, April). *Preservice elementary teachers' retention of appropriate nature of science conceptions*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Morrison, J.A. (2003, April). *Preservice teachers' development and implementation of science performance assessment tasks*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Morrison, J.A. (2003, January). *Using science notebooks with preservice and inservice teachers*. Paper presented at the International Annual Meeting of the Association for the Education of Teachers in Science, St. Louis, MO.

Akerson, V.L., Reiff, R., Morrison, J.A., Hanuscin, D., Shymansky, J.A., & Yore, L.D. (2003). *Issues associated with using student science journals with K-6 students*. Paper presented at the annual international conference of the Association for the Education of Teachers in Science, St. Louis, MO.

- Morrison, J.A., & *Hood, P.(2002, November). *Using science notebooks in K-5 to increase students' understanding of science*. Paper presented at the Annual Regional Meeting of the National Science Teachers Association, Portland, OR.
- Morrison, J.A. (2002, October). *Preparing preservice and inservice teachers to teach inquiry science*. Paper presented at the WSU College of Education-Nishinomiya Board of Education Seminar, WSU TriCities, WA.
- Roth McDuffie, A., Akerson, V., & Morrison, J. (2002, April). *Preservice teachers designing and using performance assessment in schools as part of their math methods course*. Paper presented at an Association of Mathematics Teacher Educators sponsored session at the National Council of Teachers of Mathematics Annual Meeting (National), Las Vegas, NV.
- Morrison, J.A. (2002, January). *A focus for collaboration: Developing and implementing science and mathematics performance assessment tasks*. Paper presented at the International Annual Meeting of the Association for the Education of Teachers in Science, Charlotte, NC.
- Akerson, V, Morrison, J.A., & McDuffie, A. (2002, January). *Performance assessment in science methods*. Poster presentation at the International Annual Meeting of the Association for the Education of Teachers in Science, Charlotte, NC.
- Morrison, J.A., & Akerson, V. (2001, November). *A variety of performance assessment tasks to help prepare your K-8 students for the science WASL*. Paper presented at the Annual Meeting of the Washington Science Teachers Association. Yakima, WA.
- Roth McDuffie, A., Akerson, V., & Morrison, J. (2001, January). *Designing and implementing meaningful field-based experiences for mathematics methods courses: A program description*. Paper presented at the Association of Mathematics Teacher Educators Annual Conference, Costa Mesa, CA.
- Akerson, V., Roth McDuffie, A., & Morrison, J. (2001, January). *The bridges research project: Pairing preservice and inservice teachers for professional development in science, math, and literacy using performance assessment tasks as contexts*. Paper presented at the International Annual Meeting of the Association for the Education of Teachers in Science, Costa Mesa, CA.
- Morrison, J.A. (2001, January) *Science teachers' understanding and diagnosis of students' preconceptions*. A paper presented at the annual meeting of the Association for Education of Teachers in Science, Costa Mesa, CA.
- Morrison, J.A. (2000, April) *Science teachers' diagnosis of students' preconceptions*. A paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA

Morrison, J. A. (1996, January) *Development of preservice teachers' ability to assess students' understanding*. A paper presented at the annual meeting of the Association for Education of Teachers in Science, Seattle, WA

Morrison, J. A. (1995) *Development of preservice teachers' ability to assess students' understanding*. A paper presented at the annual meeting of the Oregon Educational Research Association, Corvallis, OR

Morrison, J. A. (1994) *Students' conceptions on the nature of matter*. Oregon State University, Department of Science and Mathematics Education, Corvallis, OR

INVITED PRESENTATIONS

Morrison, J. (January, 2003) Using science notebooks with preservice and inservice teachers. Presentation at the LASER Alliance Lead Teacher Training Meeting, Pasco, WA.

Roth McDuffie, A. & Morrison, J. (March, 2002). Designing and using meaningful field-based experiences in mathematics and science methods courses. Presentation to the Professional Education Advisory Board to Washington State University, Richland, WA.

SERVICE AND PARTNERSHIPS

Service to the University, College of Education, and Department of Teaching and Learning

Organized First Annual Cross Campus Secondary Education Faculty meeting held at the Tri-Cities campus, January 30, 2004

Member Dean's Faculty Advisory Committee (DFAC), September 2003-present

CO-TEACH meetings with Columbia Basin College. Organized and facilitated two meetings, May and June 2003. Meetings involved examining and coordinating teacher preparation programs served by both institutions

Academic Student Affairs Council of the Dept. of Teaching and Learning at WSU TC, 2002-present.

Student Admissions Committee of the Dept. of Teaching and Learning at WSU TC, 2002-present

WSU-TC Health, Safety, and Environment Committee member January, 2002-present

Judge, WSU-TC Student Research Symposium, May, 2001

Reviewer, WSU-TC Westinghouse Scholarship Committee, May, 1998

Service to Professional Organizations and Agencies

Editorial Reviewer, *Journal of Elementary Science Education*. January 2004-present

Reviewer, American Educational Research Association Annual Meeting 2004, four proposals for Division K: Section 1.

Reviewer, National Association for Research in Science Teaching 2004 Annual Meeting, Strands 1, 2, and 8. (5, 6, and 4 proposals respectively)

Member, Fitzner Eberhardt Awards (Pacific Northwest National Laboratory) Selection Committee, April, 2003

Member, Membership and Participation Committee, Association for Education of Teachers of Science, January 2003-present

Member, LIGO (Laser Interferometer Gravitational-wave Observatory) Local Educators Network Advisory Board, (December, 2002- present)

Reviewer, NASA Space Grant, Mini-grant proposals, January, 2003; December, 2003
Reviewer, National Association for Research in Science Teaching 2003 Annual Meeting, Strands 1, 2, and 8.
Member, Southeast Washington LASER Alliance Advisory Board, January, 2002- present
Reviewer, National Association for Research in Science Teaching 2002 Annual Meeting, Strand 8
Member, Washington State LASER Partners Achieving Leadership in Science (PALS) 2001-present
Editorial Reviewer, *School Science and Mathematics*, 1996-present
Member, Financial Advisory Committee, Association for Education of Teachers of Science, 1997-2001
Presider, Association for Education of Teachers in Science, Annual Meeting, Seattle, Washington, 1996
Reviewer, National Science Teachers Association Annual Meeting, 1996
Reviewer, National Science Teachers Association Regional Meeting, 1995
Team Leader, Teaching Excellence Advancing Math and Science (TEAMS) Workshop, Oregon State University, Corvallis, Oregon, 1995
Member, Program Committee, Oregon Educational Research Association, Annual Meeting, Corvallis, Oregon, 1995
Presider, Science Education Section, Oregon Academy of Science, Portland, Oregon, 1995
Co-chair, Science Education Division, Oregon Academy of Science, 1995, 1996

Service to School Districts

Presented training on using science notebooks to local upper elementary and middle level teachers, October, 2003
Presented training on FOSS science kits to teachers from Bethlehem Lutheran School, August, 2003
Judge, Middle School Science Fair, Desert Hills Middle School, February, 2003
Presented workshop on using science notebooks to middle school science teachers from Kennewick, Pasco, Richland, and Walla Walla School Districts, January, 2003
Presented trainings on FOSS science kits to Pasco School District teachers, April, November, December, 2002
Presented training on FOSS science kits, Mesa School District teachers, August, 2002
Presented Nature of Science/Inquiry Science workshop, North Franklin School District, April, 2001
Presented GEMS (Great Explorations in Math and Science) workshop for grade K-5 teachers, Educational Service District 123, February, 2001
Presented workshop on Washington mathematics EALRS, Amistad Elementary School, Kennewick School District, January, 2001
Presented Mathematics/Problem Solving workshops, Clarkston School District, January and February, 2001
Judge, School Science Fair, Sunset View Elementary School, Kennewick School District, 2000-2001

Service to the Community

Instructor, Kennewick Community Schools, one class each quarter, Highland Bagpipes, 1997-present
Leader, Non-profit Community Organization: Desert Thistle Pipe Band, 1998-present
Coordinator and instructor for the Desert Thistle Youth Pipe Band, formed September, 2002

WORKSHOPS/TRAININGS ATTENDED

Puget Sound Science Supervisors, yearly workshops 2001, 2002

Grantwriting workshop presented by Dr. Robert Lowman, WSUTC, October, 2002

LASER Strategic Planning Institute, presented by National Science Resource Center, June, 2001

TEXTBOOKS REVIEWED

Complete text of *Secondary and Middle School Teaching Methods*, Allyn & Bacon, August, 2003

Prospectus, Table of Contents, Chapter One of *A Pragmatic Approach to Educational Research*, Allyn & Bacon, October, 2003

GRANTS SUBMITTED AND AWARDED

Storm, S., Morrison, J.A., & McDuffie, A. (2001) *Teachers Leading Teachers: Establishing Mentorships for Science and Mathematics Teachers at All Levels*. \$632, 801. National Science Foundation. Preproposal accepted, full proposal not funded.

Roth McDuffie, A., & Morrison, J. (Submitted April, 2002, Not funded). Comprehensive Math and Science Partnership in Washington State. A National Science Foundation Proposal submitted in partnership with the Washington State Office for the Superintendent of Public Instruction, regional Educational Service Districts, School Districts state-wide, and other State Universities. WSU Tri-Cities funding requested: \$125,000; Comprehensive program funding requested: \$35, 000,000; Not funded.

Morrison, J. A. (2003) Science notebook project. Funded through the WSU College of Education Faculty Research Awards, \$4,400.

Morrison, J. A. (2003) Travel award. Funded through the WSU College of Education Faculty Funding Awards to present at 2003 AERA conference in Chicago, \$634.

Paznokas, J. L., Gutting, J., Morrison, J. A., Nelson, T. D., & Paznokas, L. S. (2003). Southern Washington Partnership, a five year National Science Foundation Math/Science Partnership grant. Amount requested \$12,243,493. Under consideration.

PROFESSIONAL ORGANIZATIONS

American Association for the Advancement of Science

Association for the Education of Teachers in Science

Association for Supervision and Curriculum Development

American Educational Research Association

National Association for Research in Science Teaching

National Science Teachers Association

School Science and Mathematics Association

Washington Science Teachers Association