

## CURRICULUM VITAE

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**DATE:** January 15, 2021

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**CURRENT POSITION(s):** University of Texas at Tyler  
Sam and Celia Roosth Chair in Education

**RANK:** Professor (STEM Education)

**APPOINTMENT:** College of Education and Psychology (Tenured)/College of Engineering

### EDUCATION BEYOND HIGH SCHOOL:

#### Degrees:



Ph.D. Curriculum and Instruction

August 1993

Indiana University



M.A.T. Science Education

August 1989

University of Texas-Dallas



B.A. Geosciences

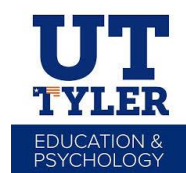
May 1984

University of Texas-Dallas

### CURRENT BIOGRAPHY:

Michael R.L. Odell, Ph.D. is a Professor of STEM Education and holds the endowed Roosth Chair in Education. Dr. Odell holds a joint appointment in the College of Education and Psychology and the College of Engineering. He has been instrumental in implementing innovative programs that have resulted in increased enrollments, extramural research grants, and gifts from alumni and industry. Programs initiated by Dr. Odell include the UTeach Replication, which has doubled the number of STEM teachers produced by the university. He co-founded the UT Tyler University Academy charter schools, which also serve as Laboratory Schools for the School of Education located at the UT Tyler main campus (Tyler, TX) and extension campuses in Longview and Palestine. He also established the Ingenuity Center, one of seven designated STEM Centers in Texas. Dr. Odell developed the agreement for the UT Tyler Partnership to manage the Discovery Science Place, a Family STEM Museum and associated Mobile STEM Outreach. Dr. Odell was instrumental in growing the research enterprise at UT Tyler and in the College of Education. In addition to his faculty appointment, Dr. Odell has held several administrative positions at UT Tyler including the Director of the School of Education and the Vice President for Sponsored Research. Dr. Odell has published numerous articles, book chapters, proceedings, and technical reports. He has won over \$60 million in grants, contracts, royalties, and development.

### EXPERIENCE:



**University of Texas at Tyler (2006-Present)**

**Sam and Celia Roosth Chair in Education (Endowed Chair 2006-Present)**

**Professor STEM Education**

**School of Education:** As the Roosth Chair in Education it is my responsibility to advocate for STEM Education, increase faculty productivity, and seek out new opportunities to expand STEM Education in East Texas and throughout the state. I also work with faculty to develop personal research agendas and outreach programs. As Roosth Chair, I led the efforts to become an UTeach replication site and UT Tyler has doubled the number of STEM Teachers produced annually as a result and has the highest retention of UTeach Students when compared to all replication sites nationally. I also co-led the efforts to develop the Ed.D. program in School Improvement (Approved 2019) and new bachelor's degree in education with multiple certification options in Science (pending approval 2020).

### **Coordinator Roles**

- Co-Director: UT Tyler UTeach Program (150+ STEM Education Students)
- Co-Director: Ed.D. in School Improvement (24 Students)

### **Accomplishments:**

- Over \$40 million dollars in external funding since arriving at UT Tyler
- UTeach Replication that has significantly increased the number of STEM Teachers
- Founding of three high performing K-12 University Charter Laboratory Schools (Public Open Enrollment Schools).
- Founding of the Ingenuity Center, one of the most influential STEM Education Research and Development Centers in Texas.
- Co-developed the Doctoral Program focused on School Improvement (THECB Approved 2020).



### **Vice President, Office of Research and Technology Transfer (ORTT) (2013-2017)**

The mission of the Office of Research and Technology Transfer was to provide effective leadership through the promotion and support of quality research and sponsored programs both within the university and through collaborative efforts with other universities, industries, and businesses. It was my role to ensure that the ORTT provided quality services and administrative support to the university community and represent the interests of the UT System, the President of the university, and the university community in relationships with external funding agencies and sponsors.

### **Accomplishments:**

- According to the 2016 Chronicle of Higher Education Almanac, UT Tyler Ranked 3<sup>rd</sup> nationally for “Greatest in total percentage increases in Research and Development Spending and 3<sup>rd</sup> nationally for “percentage increases in federal research dollars spent” (2005-2014). I was personally responsible for a significant portion of the growth as both a faculty member and as Vice President.
- UT Tyler was one of two UT System Institutions to increase research dollars from 2005-2015. As Vice President, I provided strategic investments in faculty, equipment, and facilities to increase competitiveness in securing external funds.
- Provided oversight for university research centers and assisted in the recruitment of faculty by obtaining start-up funding which included \$1.2 million in start-up funds for talent acquisition in 2016-17.
- Provided leadership to implement the development of an electronic submission process for IRB, IACUC, and Biosafety Applications.
- Revised the Internal Grant program to align to the research mission of the university and support projects that could lead to additional external funding.
- Initiated new research center development that added over 50,000 sq. ft. of facilities on campus including seed funding for new research centers in Biology, Computer Science, Education Leadership, STEM Education, and Kinesiology.

### **Director, Federal Relations (2013-2017)**

As Director of Federal Relations, I coordinated UT Tyler priorities with UT System Federal Relations Office priorities. I developed, submitted, and successfully obtained congressional grant funding for UT Tyler initiatives. I met regularly with Texas Congressional staff to provide briefings on UT Tyler initiatives and the potential impacts of legislation and federal policies on the university.

**Accomplishments:**

- UT Tyler was the first UT Institution to supply faculty researchers to the Army Research Lab in Maryland under the 2014 UT System Cooperative Research and Development Agreement (CRADA).
- In 2015, UT Tyler entered into a Space Act Agreement to collaborate with NASA JSC to support the Orion program and develop partnerships with the UT Tyler Houston Engineering Center.
- Supported visits to campus by the Texas Congressional Delegation to highlight UT Tyler programs.

**Other Duties**

**Advancement:** Worked with the Office of University Advancement to raise private dollars to support research and education outreach. This includes matching and sustainability funds for successful projects when sponsored funding ends.

**Accomplishments:**

- Raised over \$200,000 in private dollars to support research, STEM Education Initiatives, UT Tyler Charter Schools, Scholarships, and the Discovery Science Place.
- Manage the Roosth Endowment (\$700K) which yields approximately \$35,000 annually.

**State Government Relations:** During the 2017 Texas Legislative Session, I worked with the State Government Relations Office to address three Education Bills that passed concerning the High School Math Sequence, Instructional Minutes in Schools, and Financial Reporting for University Charter Schools.

**Accomplishments:**

- Financial reporting for University Charter Schools was revised to no longer disadvantage university charters.

**Dual Credit:** I initiated dual credit at UT Tyler to compete with community colleges, provide rigorous high-quality courses that meet UT Tyler standards for students ultimately seeking STEM degrees, and recruit high quality students. High school students in Texas can earn up to 60 credits towards a bachelor's degree. This has implications for future enrollments and student recruiting.

- UT Tyler enrolled over 800 Dual Credit students in 2017.
- Developed a Virtual Senior High School Charter Application in 2017 that would allow qualified High School Juniors and Seniors to enroll full time into a Dual Credit Academy that would allow students to complete the University Core Curriculum in place of the final two years of High School. Proposal approved by the Texas Education Agency. Pending Implementation.

**Associate Vice President, Office of Sponsored Research and Director, Federal Relations (2010-13)**

**Accomplishments:**

- The AVP Position was reclassified as a VP position in 2013 to report directly to the President. This change was partially a response to support the acquisition of external funds beyond Academic Affairs units and to expand the development of tech transfer capabilities and entrepreneurial initiatives.



I co-founded the academy under the name the Innovation Academy in 2012 and serve as the chief architect of the Charter School Model that functions as a Laboratory School and model STEM Academy. There are three academies managed by UT Tyler. The Innovation Academy serves grades K-12 and is currently the only University Open Enrollment Charter School in Texas to include High School grades.

**Accomplishments:**

- Implemented a Teacher residency Program to develop new teachers through a mentor-based model of teacher preparation.
- The University Academy Longview was the top achieving school district in Gregg County and recognized as one of the highest performing schools in Texas.
- The Innovation Academy in Palestine is a Title 1 School and is the top performing school in Anderson County. It was also recognized as one of the highest performing schools in Texas.
- The Innovation Academy in Tyler is currently the second top achieving school district in Smith County.
- The Academies are host sites for educator preparation programs including the UTeach Replication and Teacher Residency Program.
- Replication site at UT Permian Basin in Odessa, Texas.
- Replication model in Austin Independent School District, Austin, Texas.



**Discovery Science Place (DSP) (2012-18):** I provided oversight of the management of the DSP, a local Children's Science Museum until 2018. I negotiated an MOU in 2011 (renewed in 2017) to manage the museum and created three mobile museums that serve Texas and beyond. Oversight included the retail enterprise as well as the non-profit outreach enterprise. The DSP provides internship opportunities for UT Tyler students in Education, Business, and Engineering.

**Accomplishments:**

- The DSP serves over 80,000 attendees annually and the mobile museums host over 100,000 attendees annually.
- The DSP is also the host of the Tyler Maker Fair.
- The DSP is a self-supporting auxiliary that adds value to the community and provides a presence to the university in downtown Tyler.



**Executive Director, Ingenuity Center: A Texas STEM Center (2006-2013; 2017-Present)**

As Roosth Chair, I established the Ingenuity Center (IC), an R&D Center approved by the UT System. The IC has become the umbrella organization for the UT Tyler Education Core Research Facility that is available to all system institutions for research purposes. The center also provides technical assistance services to schools, non-profits, and universities.

**Accomplishments:**

- Over \$40 million in external funds to UT Tyler through the IC.
- The Ingenuity Center is one of seven Texas Education Agency designated STEM Centers.
- Co-Chair the Texas STEM Coalition Annual Conference (2009-Present)
- Director, College Board Annual Advanced Placement Summer Institute
- Director, Project Lead the Way Preservice Partnership for Launch Program
- Co-Director, UT Tyler GLOBE Partnership
- Education Representative, Affiliate Texas Space Grant Consortium



**Director, School of Education (Interim), 2008-2009**

As the Initial Director of the School of Education, it was my responsibility to transition three separate departments, Curriculum and Instruction (C&I), Teacher Educator Certification (TEC), and Early Childhood, Reading, and Special Education (ECRSE) into a single unit.

**Accomplishments:**

- Initiated a professional advising office, a policy and procedures manual, a consistent and predictable course schedule for students, and reduced costs while increasing efficiency, services, and enrollments.
- Provided oversight for the accreditation process for TEAC and SACS.
- The SOE increased grant production, scholarly publications, and student enrollments.
- Implemented differentiated assignments for faculty to capitalize on the individual strengths of each faculty member.

**Previous Institutions**



**ILLINOIS STATE UNIVERSITY (2005-06)**

**Assistant Dean (Interim), College of Education (2006)**

- Focus on grant development and research initiatives.

**Chair, Curriculum and Instruction (2005)**



**University of Idaho (1993-2005)**

**Director, Division of Teaching, Learning, and Leadership (TLL) (2004-05)**

- Oversight and administration for Undergraduate, Graduate, and Doctoral Programs within the Division, which included Curriculum and Instruction, Educational Leadership and Special Education.
- Oversight of NCATE Accreditation
- Oversight of programs at Boise, Coeur d'Alene, and Idaho Falls outreach campuses.
- Coordinated outreach to public schools.
- Developed collaborative projects with Native American schools at the Nez Perce Reservation and the Coeur d'Alene Reservation.

**Interim Director, Division of Teaching, Learning, and Leadership (TLL) (2003-04)**

As part of reorganization, combined Curriculum and Instruction, Special Education, and Educational Leadership into one unit.

**Associate Professor of Science/Technology Education (1999-2005)**

- Elementary Program Coordinator (2001-2003)

**Assistant Professor, Science Technology Education (1993-1999)**

**Adjunct Associate Professor, Environmental Science (2000-05)**

**Director, Institute for Mathematics, Interactive Technology, and Science Education (1995-2005)**

Accomplishments:

- Co-Director, National Center for Online Learning Research (NCOLR), 2001-2005.
- Director, Idaho Virtual Campus (IVC), 1997-2005.
- Co-Director, Idaho GLOBE Partnership, 1996-2005.
- Associate Director, Idaho Space Grant Consortium, 1997-2005.
- Over \$20 Million in grant funding.



(1990-93)

- **Associate Instructor** (Doctoral Student)



(1984-90)

- **Earth Science Teacher**, Sam Houston Junior High School (1984-90)
- **Environmental Science/English Teacher**, MacArthur High School (summers)

**Certificates and Licenses:**

- Texas Teacher Evaluation and Support System (T-TESS)
- Secondary Level (6-12) Earth Science
- Secondary Level (7-12) English, Texas
- Technology Competence, Idaho
- GLOBE Master Trainer Certification

**Fellowships**



***The GLOBE Program-University Corporation for Atmospheric Research (UCAR)***

**GLOBE Fellowship:** Developed an online grant course for GLOBE US Partners, co-developed five grant proposals for GLOBE in collaboration with GLOBE Program Office staff and assisted in the development of a GLOBE foundation. Two grant applications received funded, including an NSF OISE grant and NSF ITEST grant. I also worked on a sustainability strategy for the GLOBE Program Office (2006-08).



***National Aeronautics and Space Administration (NASA)***

**Faculty Fellowship:** Kennedy Space Center, NASA KSC, Cape Canaveral, Florida. My primary task was to conduct research and provide a report to guide the KSC Education Office in its development of online education products (2003 summer).



**National Space Grant Fellowship:** NASA Headquarters, Washington, D.C. My tasks included assisting the director in managing the program, serving as a liaison to all GLOBE Program training sites located at Space Grant Universities across the nation, assisting NASA EPSCoR programs, and the NEWEST/NEWMASST Program. I also conducted site visits for the purpose of Space Grant Affiliate program evaluations (1995-97).



## Teaching Accomplishments:

I have taught at the K-12 and University levels. As a Middle School teacher, I taught Earth Science. At the High School level, I taught Environmental Science and English. At the university level, I have taught a range of courses including Geoscience courses for undergraduates as well as Education and Research courses at the undergraduate and graduate levels. I am committed to developing new strategies and integrating new technologies to improve student learning and provide access to a broader population of students. A list of courses is in the appendices.

**Co-Director, University of Texas at Tyler Doctor of Education in School Improvement:** I co-developed the Ed.D. program in School Improvement. As Co-Director, I work with faculty to develop courses, mentor faculty to chair dissertations, and advise students in research to complete their Dissertation of Practice. The Ed.D. in School Improvement is one of a handful of school improvement focused doctoral programs in the country and the only one in Texas.



**Co-Director, University of Texas at Tyler UTeach Program:** I serve as the Co-Director for the UTeach replication at UT Tyler. UTeach is an innovative university-based teacher preparation program working to increase the number of qualified science, technology, engineering, and mathematics (STEM) teachers in secondary schools. The program was implemented without adding time or cost to students. UT Tyler was a member of Cohort 2 Replication sites. We more than doubled STEM Teacher production since the program was implemented



**Co-Director, University of Texas at Tyler GLOBE Partnership:** I have been involved with GLOBE since 1995. I served as a NASA liaison to Space Grant Institutions that hosted GLOBE National Trainings while serving as a National Space Grant Fellow at NASA (1995-97). I became a trainer for GLOBE in 1996 and conducted teacher trainings across North America, Europe, and South America. When my Space Grant Fellowship ended, I returned to the University of Idaho and established the Idaho GLOBE Partnership. I later established the University of Texas at Tyler Partnership. I work with preservice and inservice teachers to implement GLOBE in the classroom and was one of the first partnerships to integrate GLOBE into the preservice curriculum. I have collaborated with other US Partners and the GLOBE Program management to create GLOBE curriculum activities, host conferences including Co-Chairing the 11<sup>th</sup> Annual Conference held in San Antonio, Texas. I have written numerous funded state proposals to support GLOBE activities and co-authored five proposals while serving as a GLOBE Fellow at UCAR. I was elected the first GLOBE International Advisory Committee (GIAC) Representative for the North America Region.



**Affiliate Director, Texas Project Lead the Way (PLTW):** I was named the Affiliate Director for the Texas PLTW Program from 2007-2018. Project Lead the Way provides transformative learning experiences for K-12 students and teachers across Texas. The programs, which include Advanced Placement and Career/Technical Education STEM Pathways, create an engaging, hands-on classroom environment, and empower students to develop in-demand knowledge and skills. Texas PLTW provides teachers with the training, resources, and support they need to engage students in real-world learning. The program has grown from 112 programs in 2007 to over 900 Programs in 2018 serving over 170,000 K-12 students in over 200 of the 1247 School Districts in the state. Texas PLTW has been expanding at a rate of 100+ programs annually. Texas PLTW trained over 1,000 teachers each year at UT Tyler campuses in Tyler and Houston.



**Director, UT Tyler Advanced Placement Summer Institutes (APSI):** I oversee the delivery of the College Board APSI program serving over 150 teachers annually.

## **Scholarship:**

### **Book Chapters**

#### ***Accepted/In Press:***

Pedersen, J., Simmons, J., Dyer, K., Odell, M.R.L. Kennedy, T.J. and Oliveras-Ortiz (Expected 2021). Developing Future School Improvement Leaders and Improving K-12 Mathematics Achievement. In Peterson, D.S. and Carlile S., *Improvement Science: Promoting Equity in Schools*. Washington, D.C.: AERA Press.

Rasberry, J., Dyer K., Simmons, J.K., Odell, M.R.L. Kennedy, T.J. and Oliveras-Ortiz (Expected 2021). Developing Future School Improvement Leaders and Improving K-12 Mathematics Achievement. In Peterson, D.S. and Carlile S., *Improvement Science: Promoting Equity in Schools*. Washington, D.C.: AERA Press.

Rowley, J., Odell, M.R.L., Kennedy, T.J., Wise, D., Haney, J. Walker, R., Rodriguez, Y. and Helmik, K. (Expected 2021). A Case Study in Equity Focused School Improvement in an Urban Middle School. In Peterson, D.S. and Carlile S., *Improvement Science: Promoting Equity in Schools*. Washington, D.C.: AERA Press.

Worch, R., Odell, M.R.L., and Magdich, M. (Expected 2021.) Engaging Children in Science Learning Through Outdoor Play. In Tunnicliffe, S.D. & Kennedy, T.J. (Eds.) (Springer Intl. proposal in process, proposed publication date 2021). *Play and Emerging STEM in the Early Years Worldwide*. Switzerland: Springer International Publishing.

#### ***Published:***

Ferrara, J., Pedersen, J. & Odell, M.R.L. (2021). Creating Digital Content Using Stop Motion Animation: Delving into Expressions and Equations. In Lee, J.S. and Galindo, E. *Making Mathematics Come Alive in the Elementary Classroom with Project-Based Learning: Rigor, Relevance and Relationships*. National Council for Teachers of Mathematics (NCTM): Reston, VA.

Odell, M.R.L., Kennedy, T.J., Simmons, J.A. and Pedersen, J.L. (2020). Laboratory Schools to Support the Preparation of UTeach Preservice Teachers. In J. Goodell and S. Koc *Preparing STEM Teachers: A Replication Model*. Information Age Publishing.

Odell, M.R.L. & Pedersen, J.L. (2020). Project and Problem-Based Teaching and Learning. In B. Akpan & T.J. Kennedy (Eds.), *Science Education in Theory and Practice*. (Chapter 23). Switzerland: Springer International Publishing.

Odell, M.R.L. & Kennedy T.J. (2019). Human Resources and STEM Teacher Education. In B. Akpan (Ed.), *Science Education: Visions of the Future* (Chapter 11, pp. 151-164). Next Generation Education, LTD, Abuja.

Hickey, W. D., & Odell, M. R. L. (2015). Instructional activities that create engaging experiences in online courses. In V. Vaughn, G. Miller, & Y. Oliveras-Ortiz (Eds.), *Preparing future ready education leaders through globalized online learning* (pp. 110-119). Ypsilanti, MI: NCPEA Publications.

Crow, J.E., Kennedy, T.J., Odell, M.R.L., Ophus, J.D. & Abbitt, J.T. (2013). "Using Just-in-Time PD to Technologically Prepare High School STEM Teachers." In M.M. Capraro, R.M. Capraro, & C.W. Lewis, (Eds.), *Improving Urban Schools: Equity and Access in K-16 STEM Education*, Chapter 9, 143-157. Information Age Publishing. <http://www.infoagepub.com/products/Improving-Urban-Schools>



Kennedy, T.J., Abbitt, J.T., & Odell, M.R.L. (2010). "Pre-service ELL Science Teacher Preparation in the Southeast United States." In D.W. Sunal, C.V. Sunal, & E. L. Wright (Eds.), *Research in Science Education: Teaching Science with Hispanic ELLs in K-16 Classrooms*, Chapter 8, 183-199. Information Age Publishing.

Roblyer, M., Dickey, E. and Odell, M.R.L., (2005) Chapter 11: Technology in Mathematics and Science Instruction. In *Integrating Educational Technology into Teaching*, fourth edition by M. D. Roblyer, Prentice Hall.

Sundberg, C., Sunal, D. Mays, A. and Odell, M.R.L., (2005). Chapter 10: Problem Solving and Coping Strategies Used in an Online Learning Environment. *InfoAge 2005 Research on Enhancing the Interactivity of Online Learning: A Volume In: Perspectives in Instructional Technology and Distance Education*. Edited by Vivian H. Wright, Cynthia Szymanski Sunal and Elizabeth K. Wilson.

Odell, M.R.L., Badger, W., Kennedy, T.J., Ewers, T., and Klett, M.D. (2004). Chapter 11: Lessons from Research: Integrating Information Technology into Undergraduate Science Education. *InfoAge 2004 Volume of Research in Science Education: Reform in Undergraduate Science Teaching for the 21<sup>st</sup> Century*. Edited by Dennis Sunal and Emmett Wright.

Graves, S., Odell, M.R.L., Ewers, T. and Ophus, J. (2004). Chapter 32: Models of Reform in Teaching in the General and Earth Sciences: Promoting Scientific Literacy among Undergraduate non-Science Majors *InfoAge 2004 Volume of Research in Science Education: Reform in Undergraduate Science Teaching for the 21<sup>st</sup> Century* Edited by Dennis Sunal and Emmett Wright.

#### **Refereed/Adjudicated:**

##### **Published:**

Odell, M.R.L., Kennedy, T.J., & Stocks, E. (2019). "The Impact of PBL as a STEM School Reform Model." *Interdisciplinary Journal of Problem-Based Learning*, 13(2). [www.ijpbl.org](http://www.ijpbl.org) (ISSN 1541-5015)

Veal, W., Malone, K, Hines, M. Wenner, J. and Odell, M.R.L. (2019) Increasing Science Teacher Candidates Ability to become Lifelong Learners through a Professional Online Learning Community. *Innovations in Science Teacher Education*, Association of Science Teacher Educators 4 (1).

Kennedy, T.J. and Odell, M.R.L. (2014). "Engaging Students in STEM Education." *Science Education International* 25 (3), 246-258.

Sundberg, C., Kennedy, T.J., Odell, M.R.L. (2013, winter). "Weather, Climate, and Web 2.0: 21<sup>st</sup> Century Students Speak Climate Science Well." *Journal of Interactive Online Learning*, 12(3), 122-155. <http://www.ncolr.org/issues/jiol/v12/n3/3>

K. K. Ellins, E. Snow, H. C. Olson, E. Stocks, M. Willis, J. Olson, and M. R. Odell (2013) The Texas Earth and Space Science (TXESS) Revolution: A Model for the Delivery of Earth Science Professional Development to Minority Serving Teachers. *Journal of Geoscience Education*: May 2013, Vol. 61, No. 2, pp. 187-201.

Dyar, M.D., Gunter, M.E., Davis, J.C., and Odell, M.R.L., 2004. Integrating New Methods into Teaching Mineralogy. *Journal of Geoscience Education*, Vol. 52 (1).

Sundburg, C., Odell, M.R.L., Sunal, D., May, A. and Ruchti, W. 2004. Team Teaching in an Online Environment: Effects on Instructors and Students. *NW ATE Journal of Educational Practices*, Vol. 3 Number 1.

Carr, K., Gardner, F., Odell, M.R.L., Munsch, T. and Wilson, B. 2003. The Role of Online Asynchronous Interaction in Development of Light and Color Concepts. *Journal of Interactive Online Learning*, Vol. 2, Number 2.

Sunal, D., Sunal C., Odell, M.R.L. and Sundburg, C., 2003. Research Supported Best Practices for Developing Online Learning. *Journal of Interactive Online Learning*. Vol. 5 Number 1.

Sunal, D.W., Hodges, J., Sunal, C., Whitaker, K., Freeman, M., Odell, M.R.L., Edwards, L and Johnston, R. 2001. Teaching Science in Higher Education: Faculty Professional Development and Barriers to Change. *School Science and Mathematics*, Vol. 101 (5), pp. 246-257.

Kennedy, T.J., Nelson, J., and Odell, M.R.L., 2000. The FLES Attitudinal Inventory. *Foreign Language Annals*. Vol. 33, No. 3.

Kennedy, T.J. and Odell, M.R.L., 2000. GLOBE: An International Technology-Based Interdisciplinary Program. In H.E. Klein (Ed.), *Case Method Research and Application: Creative Interactive Teaching, Case Method and Other Techniques*, Vol. XII, pp. 215-218.

Kennedy, T.J., Odell, M.R.L., Jenson, F. and Austin, L. 1998. A Program Model: Idaho FLES. *Hispania*, Vol. 81, pp. 933-938.

Odell, M.R.L. 1997. Project Nova: Creating Change in Higher Education. *Ad Astra*, Vol. 9, No. 5, pp. 50-53.

Odell, M.R.L. 1996. The National Science Education Standards: An Overview. *Journal of the Idaho Academy of Science*, Vol. 32, No. ½, pp. 43-44.

Odell, M.R.L., Hewitt, P.A., and Worch, E.A., 1995. Models make it Better: Three-Dimensional Laboratory Models. *Science Scope*, Vol. 19(3), pp. 26-29.

Worch, E.A., Odell, M.R.L., and Gabel, D., 1994. Saturday Science QUEST: Enhancing Pre-Service Science Teaching and Children's Science. *School Science and Mathematics*, Vol. 94(8), pp. 401-404.

Odell, M.R.L., Popiel, E.L., and Munsch, T. 1993. What Preservice Teachers in Idaho Bring to the Science Methods Course: Background, Perceptions, and Beliefs. *Journal of the Idaho Academy of Science*, Vol. 29(2), pp. 15-22.

### **Invited Papers**

Odell, M.R.L. and Kennedy, T.J., 2008, Texas STEM Centers (T-STEM): Working to Improve STEM Education across Texas, *Insights*, summer 2008, pp. 25-31.

### **Proceedings:**

Odell, M.R.L. and Kennedy, T.J. (2020). Specialty High Schools to Support STEM Teaching and Learning. International Conference New Perspectives in Science Education, Florence, Italy.

Odell, M.R.L. and Kennedy, T.J. (2020). Inquiry-based Pedagogy to Support STEM Learning and 21<sup>st</sup> Century Skills: Preparing New Teachings to Implement Project- and Problem-based Learning. 14<sup>th</sup> Annual International Technology, Education and Development Conference, Valencia, Spain.

Ellins, K.K., H.C. Olson, E. Snow, M. Willis, M. Odell, E. Stocks, and K. Manganello, 2011, Characteristics of the Texas Earth and Space Science (TXESS) Revolution Model of In-service Teacher Professional Development, Geological Society of America Abstracts with Programs, V. 43, No. 5, Paper No. 216-8.

Ellins, K.K., H.C. Olson, E. Snow, M. Odell, E. Stocks, and M. Willis, 2010, The Impact of the Texas Earth and Space Science (TXESS) Revolution, Geological Society of America Abstracts with Programs, V. 42, No. 5, Paper No. T43-133-1

Ellins, Katherine Kelly, Eleanor. Snow, Hilary Clement Olson, Michael R.L. Odell, Eric Stocks, 2009, A Progress Report on the Texas earth and Space Science (TXESS) Revolution, Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract ED 12A-01.

Wright, E.L., Kennedy, T.J., & Odell, M.R.L. (2008). "Integrating and Researching the GLOBE Program in K-12 Science, Language and Social Studies Methods Courses and Graduate Programs." International Conference on Education, Honolulu, Hawaii.

Abbitt, J., Ophus, J. and Odell, M.R.L., 2008, Developing Online Collaboration Platform to Support Professional Development in Rural Schools. E-Learn Conference Proceedings. (AACE), Las Vegas, Nevada, pp. 1165-1166

Odell, M.R.L., 2004, KSC Educational Technology and Development Plan, *Proceedings of the International Conference on Computers in Education*, ISBN 1-86335-573-1, pp. 1361-1368.

Sunal, C. S., Christensen, L. (2002). Online conversation across continents. In. D. W. Sunal, M. Odell, T. Brown, P Gensemer, & L. Accalogoun. *Best practices in using online learning for the professional education of teachers and college faculty: Proceedings of the national conference on online interactive learning*. pp. 32 - 54, June 10 – 14, 2002, Tuscaloosa, AL: The University of Alabama: National Center for Online Learning Research.

Alexander, G.C., Odell, M.R.L., and Kennedy, T.J. 2002. Developing a Center for Online Learning, Research, and Development. *Proceedings of the Open and Distance Learning Association of Australia (ODLAA), 15<sup>th</sup> Biennial Forum*, Australian Technology Park, Sydney, Australia.

Odell, M.R.L., Kennedy, T.J., Alexander, G., Klett, M., Davis, A. and Kearney, R. 2002. Creating a Virtual Campus. *NCOLR Conference Proceedings*. Tuscaloosa, Alabama.

Odell, M.R.L., Keffer, L., Dasch, E.J., and Sadeh, W.Z. 1997. The National Space Grant College and Fellowship Program: National Mathematics, Science, and Technology Education Standards. *AETS Conference Proceedings*, ERIC Document ED398-060, pp. 386-392.

Odell, M.R.L., Klett, M.D., and Graves, S. 1997. The Idaho Virtual Classroom. World Wide Web as a Medium of Instruction. What Works, What Doesn't. *Proceedings of the Learning Technologies Conference*, Dryden Flight Research Center Publication, pp. 63-72.

Singletary, T., Hehr, L., Odell, M.R.L., Foletta, M., and Paschall, D. 1996. Global Learning and Observations to Benefit the Earth. *Proceedings/Abstracts NSTA Global Summit on Science and Science Education*, p. 21.

Odell, M.R.L., Dasch, E.J., and Sadeh, W.Z. 1996. The U.S. National Education Standards and the National Space Grant Program. *Proceedings of the 47<sup>th</sup> International Astronautical Federation Congress*, IAF-96-P.2.07.

Odell, M.R.L., and Mowrer-Popiel, E. 1996. The Idaho Science and Technology Education Project: An Innovative Model for Teaching Multimedia and Educational Technology. *The Thirteenth International Conference on Technology in Education Proceedings*, Vol. 2, pp. 419-421.

**Professional Meeting Papers:**

Odell, M.R.L., Simmons, J.A. and Kennedy, T.J. (2021). University Academies: Case Studies in Teacher Preparation and School Improvement. International Association of Laboratory Schools Conference, Toronto, Canada.

Odell, Michael R.L. (2020) (Pending). UTeach after Grant Funding Ends: Approaches for Supporting Your Program. UTeach STEM Educators Conference, Austin, Texas.

Veal, W., Jones, R. and Odell, M.R.L. (2020). Developing Science Teachers as Lifelong Learners. National Science Teaching Association Conference, Boston, Massachusetts.

Odell, M.R.L. and Kennedy, T.J. (2020). Using GLOBE to Support STEM, PBL, and Student Research in the Classroom, 13<sup>th</sup> Annual STEM Conference, Austin, Texas.

Simmons, J.A. and Odell, M.R.L. (2020). Evaluating Teachers through a Portfolio Approach, 13<sup>th</sup> Annual STEM Conference, Austin, Texas.

Simmons, J.A. and Odell, M.R.L. (2020). School Improvement: Keep it Simple, 13<sup>th</sup> Annual STEM Conference, Austin, Texas.

Odell, M.R.L. and Kessler, G. (2020). STEM Recognition through the Texas STEM Coalition, 13<sup>th</sup> Annual STEM Conference, Austin, Texas.

Odell M.R. L., Kennedy, T.J. and Simmons, J.A. (2020). Lab Schools to Support the Preparation of Preservice Science Teachers. Association of Science Teacher Educators Conference, San Antonio, Texas.

Mendez, F., Scalovino, R., Burrows, A., Odell M.R. L., and Bogdon, O. (2020). How Can the National Science Teaching Association Support Teacher Candidates and Professors? Association of Science Teacher Educators Conference, San Antonio, Texas.

Jones, R., Odell, M.R.L. and Roehrig, G. (2019). 2020 National Science Teaching Association/Association for Science Teacher Education Standards for Science Teacher Preparation. National Science Teachers Area Conference, Seattle, Washington.

Odell M.R. L., Kennedy, T.J. and Simmons, J.A. (2019). The Impact of Lab Schools on the STEM Pipeline, Southwest Association of Science Teacher Educators Conference, Fayetteville, Arkansas.

Odell M.R.L. and Kessler, G. (2019). Understanding and Using Data to Improve Instruction and Learning. University of Alabama Noyce Symposium, Tuscaloosa, Alabama.

Odell, M.R.L. and Kennedy, T.J. (2019). UT Tyler Globe Partnership: Fostering International STEM Collaborations in Texas Schools. International GLOBE Conference, Detroit, Michigan.

Hammett, W., Johnson, D., Breedlove, B., Higginbotham, J., and Odell, M.R.L. (2019). Providing UTeach Students with High Quality Placements. UTeach Annual Conference, Austin, Texas.

Odell, M.R.L. and Mendez, F. (2019). Supporting UTeach Science Teachers using the NSTA Learning Center. UTeach Annual Conference, Austin, Texas.

Kennedy, T.J., Odell, M.R.L., Dyer, K, and Prieto, S. (2019). Supporting International Collaboration Using the GLOBE Program. National Science Teachers Convention, Saint Louis, Missouri.

Odell, M.R.L., Kennedy, T.J. Dyer, and Pietro, A. (2019). UT Tyler GLOBE Partnership: Fostering International Collaboration for East Texas, East Texas Research Conference, Tyler, Texas.

Odell, M.R. and Kennedy, T.J. (2019). The TSTEM Blueprint as a Model for School Turnaround. Southwest Association of Science Teacher Educators Conference, Norman, Oklahoma.

Odell, M.R.L., Kennedy, T.J., Stocks, E. and Culclasure, B. (2019). The Efficacy of the STEM New Tech Design Promoting 21<sup>st</sup> Century Learning in Four Southeastern High Schools in the United States. EduLearn Conference, Majorca Spain.

Culclasure, B., Stocks, E., and Odell, M.R.L. (2019). The Effect of the New Tech Network Design on Students' Academic Achievement and Workforce Skills. American Education Research Association Conference, Toronto Canada.

Odell, M.R.L., Simmons, J.A., and Simmons, D. (2019) The TSTEM Blueprint as a Model for School Turnaround. Texas STEM Coalition Conference, San Antonio, Texas.

Pickhart, I. and Odell, M.R.L. (2018). Using Outdoor Learning Environments to Build Science Skills. Conference for the Advancement of Science Teaching, Fort Worth, Texas.

Odell, M.R.L. & Kennedy, T.J., (2018). "Texas Teacher Residency Programs: University of Texas at Tyler Model." Hawaii International Conference on Education: 16<sup>th</sup> Annual Conference, Honolulu, Hawaii.

Odell, M.R.L. & Kennedy, T.J., (2018). "School Turn-around: The University of Texas at Tyler Instructional Coach Model." Hawaii International Conference on Education: 16<sup>th</sup> Annual Conference, Honolulu, Hawaii.

Simmons, J.A., Rutledge, B., & Odell, M.R.L. (2018). "University Charter Schools: The University of Texas Innovation Academy Model. Hawaii International Conference on Education: 16<sup>th</sup> Annual Conference, Honolulu, Hawaii

Case, S.B, Dass, P. and Odell, M.R.L. (2018). A Center's Role in STEM Literacy. National Stem Education Center Conference (APLU). Columbus, Ohio.

Odell, M.R.L. and Pedersen, J. (2017), *University of Texas at Tyler Innovation Academy: A Teacher Preparation Laboratory and Model T-STEM Academy*, Texas Prospect Initiative Summit, Rockwall, Texas.

Simmons, J.A. and Odell, M.R.L. (2017), *Outside the Box: The First Dual Credit Senior High School in Texas*. Texas Charter School Association Conference, Grapevine, TX.

Culpepper, C., Odell, M. and Manuel, M. (2017), *UTeach STEM Educators Association (USEA): Excellence in STEM Education*. UTeach Annual Conference, Austin, Texas.

Nantz, C. Odell, M. and Cable, J. (2017), *Empowering Students while Strengthening Communities*, New Tech Annual Conference, St. Louis Missouri

Odell, M.R.L. and Kennedy, T.J. (2016), *University of Texas at Tyler Texas Teacher Residency Program (T-RES)*, Southwest Association of Science Teacher Educators Conference, Tyler, TX.

Odell, M.R.L. and Kennedy, T.J. (2016), *Preparing Teachers in a Laboratory School Setting*, Southwest Association of Science Teacher Educators Conference, Tyler, TX.

Ladine, A., Stocks, E. and Odell, M.R.L. (2016), *Evaluation of an I3 New Tech Implementation Project in South Carolina*, Southwest Association of Science Teacher Educators Conference, Tyler, TX.

Dyer, K., Pedersen, J. and Odell, M.R.L. (2016), *Instructional Coaching Model at UT Tyler Innovation Academy*, Southwest Association of Science Teacher Educators Conference, Tyler, TX.

Kennedy, T.J. & Odell, M.R.L. (2016). "Developing STEM Academies to Develop the Next Generation of Scientists and Engineers through ESD." The First Swedish International Global Action Programme on ESD Conference and the 9<sup>th</sup> Biennial Meeting of the International Network of Teacher Education Institutions associated with the UNESCO Chair on Reorienting Teacher Education to Address Sustainability – "Bridging the GAP - Educators & Trainers", Uppsala University, Sweden.

Odell, M.R.L., Stocks, E., Culclasure, B. and Nantz, C. (2016). *Planning Ahead: Approaches for Dealing with Challenges that Arise in PreK-12 Evaluations*. American Evaluation Association Conference, Atlanta, Georgia.

Odell, M.R. L., Kennedy, T.J., and Rasure, C. (2016) *Discovery Science Place Developing a Core Research Platform to Study the STEM Education Ecosystem*, Association of Science and Technology Centers (ASTC) annual conference, Tampa, Florida..

Odell, M.R. L., Gray, N., Kennedy, T.J., Pedersen, J., Wise, D., and Simmons, J. (2016). *UTeach Tyler and the Innovation Academy: Innovation in Clinical Study*. UTeach Annual Conference, Austin, Texas.

Mendez, F., Byers, A, Baird, K. Sparrow, K. Veal, W. McDonnough, Vaughn, M. and Odell, M.R.L.(2016). *Using the NSTA Learning Center as an Online Textbook for Teaching Science Preservice Teachers*, Association of Science Teacher Education (ASTE), Reno, Nevada.

Odell, M.R.L., Kennedy, T.J. and Ladine, A. (2016). *Building and Sustaining an Education Ecosystem*. Hawaii International Conference on Education, Honolulu, Hawaii.

Odell, M.R.L. and Kennedy, T.J. (2015). *Developing a Core Research Facility for K-12 and Teacher Education*. Southwest Association of Science Teacher Educators (SW-ASTE), Denton, Texas.



Odell, M.R.L. (2015). Using the NSTA Learning Center as an E-Text, Portfolio, and Induction Tool. Southwest Association of Science Teacher Educators (SW-ASTE), Denton, Texas.

Odell, M.R.L. and Nelson, J.K. (2015). Engineering Your Future at the University of Texas at Tyler. 12<sup>th</sup> Annual Texas Project Lead the Way Conference, Corpus Christi, Texas.

Odell, M.R.L. (2015). Innovation Education: A Research Platform to Study the STEM Ecosystem. National Science Teachers Associations Global Conversations. Chicago, Illinois.

Odell, M.R. L. and Kennedy, T.J. (2014). "The NSTA Learning Center: Diagnosing and Remediating Preservice Teacher Content Knowledge." Preservice Teacher Self-Efficacy Strand, National Association of Research in Science Teaching (NARST), Pittsburgh, Pennsylvania.

Kennedy, T.J. and Odell, M.R.L. (2014), "Texas STEM Coalition Transforms Teaching and Learning Methods." Hawaii International Education Conference, Honolulu, Hawaii.

Kennedy, T.J., Odell, M.R.L., Sundberg, C. & Robinson, D. (2013). "Weather, Climate, and Web 2.0: 21<sup>st</sup> Century Students speak Climate Science Well." Presentation International Council of Associations of Science Education (ICASE) WorldSTE2013, Penang, Malaysia.

Malmberg, J., Odell, M.R.L., Hoadley, C., Sumner, T., Maull, K., Dibie, O., Sundberg, C., Andersen, T., Mackaro, J., Randolph, G., Tessendorf, S., Wegner, K. (2013). *From Learning to Research: Working with Middle and High School Students and Teachers to create climate projects using 21st Century Technologies*. American Meteorological Society Annual Meeting. Austin, TX.

Kennedy, T.J. & Odell, M.R.L. (2013). "Content-Based applications of Science, Technology, Engineering, and Mathematics (STEM) materials in Spanish and Portuguese promote 21<sup>st</sup> Century language acquisition." American Association of Teachers of Spanish and Portuguese (AATSP) National Conference, San Antonio, Texas.

Kennedy, T.J., Odell, M.R.L., & Chen, D. (2013). "University of Texas at Tyler International Opportunities." NASFA Higher Education Fair. NASFA-Association of International Education, 65th Annual Conference & Expo St. Louis, Missouri.

Kennedy, T.J. & Odell, M.R.L. (2013). "Texas STEM Center Coalition Transforms Teaching and Learning Methods." Symposium, International Council of Associations of Science Education (ICASE) WorldSTE2013, Penang, Malaysia.

Odell, M.R.L., Kennedy, T.J. & Klett, M. (2013, April). "Online Earth System Science PBL Projects." NESTA National Share-a-thon, National Science Teachers Association (NSTA) National Conference, San Antonio, Texas.

Kennedy, T.J. & Odell, M.R.L. (2013, April). "GLOBE in East Texas." GLOBE Reception by Texas Partners associated with the GLOBE North America Partner Meeting at the National Science Teachers Association (NSTA) National Conference, San Antonio, Texas.

Vaughn, V., Crow, J.E., Hickey, W., & Odell, M. (2012). Designing, developing and implementing a university charter school in a time of a statewide financial crunch and increasing academic standards. Paper presented at the National Education Finance Conference in San Antonio, Texas.

Kennedy, T.J., Odell, M.R.L., & McClurg, N. (2012, March). "The GLOBE Program." CESI Share-a-thon: Elementary Extravaganza, National Science Teachers Association (NSTA) National Conference, Indianapolis, Indiana.

Trampus, K., Odell, M.R.L., & Kennedy, T.J. (2012, January). "Building P-16 Collaborations from the Higher Education Perspective." Hawaii International Conference on Education: 10<sup>th</sup> Annual Conference Honolulu, Hawaii.

Trampus, K., Odell, M.R.L., & Kennedy, T.J. (2012, January). "Leveraging Diverse STEM Programs to Foster a Robust Statewide Collaborative." Hawaii International Conference on Education: 10<sup>th</sup> Annual Conference, Honolulu, Hawaii.

Malmberg, J., Charlevoix, D., Odell, M.R.L. et al., (2012) From Learning to Research: Developing Future Earth Scientists and Professionals. ITEST Annual Meeting, National Science Foundation, Washington, D.C.

Charlevoix, D.J., Odell, M.R.L., & Kennedy, T.J. (2011). "Teachers Learning to Research Climate: Development of hybrid teacher professional development to support climate inquiry and research in the Classroom." ED12: Climate Literacy: Integrating Research and Education, Science & Solutions, American Geophysical Union (AGU), San Francisco, California.

Odell, M.R.L., Ellins, K.K., Polito, E. Comer, C., Stocks, E., Manganella, K. and Ledley, T. (2010). "TXESS Revolution: Utilizing TERC's Earth Labs Cryosphere Module to Support Professional Development of Texas Teachers." American Geophysical Union Conference, San Francisco, California.

Ellins, K.K., Olson, H.C., Snow, E., Odell, Michael, Stocks, E.L., and Willis, M., (2010). The impact of the Texas Earth and Space Science Revolution, GSA Annual Meeting.

Olson, H., Ellins, K., Snow, E., Bryant, S., Olson, J., Comer, C., Willis, M., Odell, M.R.L., and Stocks, E. (2010). "Climate Literacy Initiatives as Part of the TXESS Program." American Geophysical Union Conference, San Francisco, California.

Odell, M.R.L. & Kennedy, T.J. (November 2010). "The GLOBE Science Network." National Consortium for Specialized Secondary Schools of Mathematics, Science and Technology (NCSSSMST), Atlanta, Georgia.

Kennedy, T.J. & Odell, M.R.L. (2010, March). "NASA's GLOBE Program across the Curriculum." National Science Teachers Association (NSTA) National Conference, Philadelphia, Pennsylvania.

Kennedy, T. J., Abbitt, J.T., & Odell, M.R.L. (2010, February). "Preservice Science Teacher ELL Preparation in the Southeast United States." University of Alabama Research Seminar Series, Tuscaloosa, Alabama.

Odell M.R.L. & Kennedy, T.J. (January 2010). "Vertical Alignment of STEM Curriculum." Department of Education—NSF Mathematics and Science Partnership Program: Regional Conference. Washington D.C.

Kennedy, T.J. & Odell, M.R.L. (2009, December). "NASA's GLOBE Program: STEM Partnerships Developing Global Citizens and Connecting the Next Generation of International Scientists." UT-Tyler Annual Faculty Research Symposium, Tyler, Texas.

Kennedy, T.J., Odell, M.R.L., Ruscher, P., & McClurg, N. (March 2009). "The GLOBE Program." NESTA Earth and Space Science Share-A-Thon, National Science Teachers Association (NSTA) National Conference, New Orleans, Louisiana.

Kennedy, T.J., Odell, M.R.L., Ruscher, P., & McClurg, N. (March 2009). "The GLOBE Program." NESTA Ocean and Atmosphere Share-A-Thon, National Science Teachers Association (NSTA) National Conference, New Orleans, Louisiana.

Kennedy, T.J., Batycky, B., Odell, M.R.L., B., & Besong, M. (2009, March). "The GLOBE Program: Monitoring Climate Change." National Science Teachers Association (NSTA) 2008 International Day, National Conference, New Orleans, Louisiana.

Trampus, K., Brown, F. And Odell, M.R.L. 2009 Assessing Peer attitudes among STEM students and the potential effects on the retention of minorities in STEM Programs, ASEE Austin, TX

Trampus, K., Brown, F. And Odell, M.R.L. 2009 Assessing Peer attitudes among STEM students and the potential effects on the retention of females in STEM Programs, ASEE Austin, TX

Ellins, K. Snow, E., Olson, H., Odell, M., and Stocks, E. (2009) "A Progress Report on the Texas Earth and Space Science Revolution". American Geophysical Union, San Francisco, CA.

Odell, M.R.L., Kennedy, T.J., Abbitt, J.T., Ophus, J. And Klett, M. (2009). "Pre-service ELL Science Teacher Preparation in the Southeast United States." UNITED Conference, Marquette, MI.

Odell, M.R.L., Kennedy, T.J. & Abbitt, J.T. (2009). "Pre-service ELL Science Teacher Preparation in the Southeast United States." UT-Tyler Annual Faculty Research Symposium, Tyler, Texas.

Kennedy, T.J. & Odell, M.R.L. (December 2009). "NASA's GLOBE Program: STEM Partnerships Developing Global Citizens and Connecting the Next Generation of International Scientists." UT-Tyler Annual Faculty Research Symposium, Tyler, Texas.

Odell, M.R.L., Kennedy, T.J. & Abbitt, J.T. (2008, September). "Science Teacher Education for Hispanic Language Learners in the Southeast (SHELLS)." UNITED 2008 Conference, Uniting Neighbors in the Experience of Diversity, Northern Michigan University, Marquette, Michigan.

Odell, M.R.L., Klett, M.D. & Kennedy, T.J. (2008, June). "Electronic Applications of the GLOBE Earth System Science Poster Activity." 12<sup>th</sup> Annual GLOBE Conference, Cape Town, South Africa. Also Co-Chaired the event with African Hosts from Cameroon and South Africa.

Olson, H.C., Katherine K. Ellins, Eleanor Snow, Jon E. Olson, Marsha Willis, Michael Odell, Eric L. Stocks, Amanda Hail, 2008, the TXESS Revolution: A Teacher Professional Development Program to Advance Earth and Space Science in Texas, GSA Annual Meeting.

Odell, M.R.L. 2008, Using GLOBE Data Visualizations in the Online Learning Environment. Charleston, South Carolina.

Nelson, J.T, Trampus, K, and Odell, M.R.L. 2008. A vision of P-16 education and the relationship between. ASEE Pittsburg, PA

Laumen, J. and Odell, M.R.L. 2008, The Barnett Shale ESSEA Module, ESSEA Conference, Charleston, South Carolina

Odell, M.R.L. and Trampus, K. 2008, Surveys of Enacted Curriculum, Texas Regional Collaborative Annual Conference, Austin, Texas

Odell, M.R.L. and Trampus, K. 2008. An Analysis of the Texas Essential Knowledge and Skills (TEKS) Test versus the Texas Assessment of Knowledge and Skills (TAKS), Tyler, Texas

Trampus K. and Odell, M.R.L. 2008, Surveys of Enacted Curriculum, Southwest Association of Science Teacher Educators, Irving, Texas.

Kennedy, T.J., Odell, M.R.L., and Batycky, W., 2008, GLOBE Inquiry, GLOBE Learning Expedition, Cape Town, South Africa

Ophus, J., Abbitt, J., Odell, M. (2008). Developing an Online Collaborative Platform to Support Professional Development in Rural Schools. Poster presented at the 2008 E-Learn Conference, Las Vegas, NV.

Abbitt, J., Odell, M. (2007). Using social bookmarking to enhance an undergraduate educational technology course. Paper presented at the 2007 Society for Information Technology in Teacher Education conference, San Antonio, TX.

Odell, M.R.L., Kennedy, T.J., Klett, M., Graves, S., and Ophus, J. 2007, Lifelong Learning Online, 12<sup>th</sup> Annual GLOBE Conference, San Antonio, Texas.

List, H., Odell, M.R.L., and Kennedy, T.J. 2007, The S2 Task Project. Annual GLOBE Conference, San Antonio, Texas.

Odell, M.R.L., Abbitt, J., Sunal, D., Whitaker, K., Mackinnon, C, and Robinson, D., 2007, NASA Opportunities for Visionary Academics. Poster Presentation, Association of Science Teacher Educators Conference, Clearwater, Florida.

Kennedy, T.J. and Odell, M.R.L., 2006. The Future of the GLOBE Program in Texas, Conference for the Advancement of Science Teaching, Wichita Falls, Texas.

Odell, M.R.L., Christiansen, J., Goc-Karp, G. Graham, J., 2006, The University of Idaho Online Standards and Dispositions Assessment System. Sub-presentation of the Data System Imperative: Eight Institutional Scenarios of Successful Information Systems Implementation. American Association of Colleges of Teacher Education Conference, San Diego, California.

Odell, M.R.L., Lorsbach, A., Park, D., and Morey, M. 2006, Integrating Information Technologies into Science Education. 6<sup>th</sup> Annual ISU Symposium on Teaching and Learning. Bloomington, Illinois.

Lind, K., Morey, M., Lach, M., Douglas, R., Pollock, G. and Odell, M.R.L., 2005, No Child Left Behind, Panel Presentation at the National Science Teachers Association Conference, Chicago, Illinois.

Sunal, D., Wright, E., Sunal, C., Harwood, W., Mason, C., and Odell, M.R.L., 2005, Reform in Undergraduate Science Teaching for the 21<sup>st</sup> Century: Research Trends. Paper presented at the Association for the Education of Teachers in Science, Colorado Springs, Colorado.

Christiansen, J., Goc Karp, G, Graham, J. and Odell, M.R.L., 2004, Candidate Performance: Assessment and Accountability Systems. Paper Presented at the American Association of Colleges of Teacher Education, Chicago, Illinois.

Sunal, D.W., Odell, M.R.L., Raubenheimer, C., Sunal, C., MacKinnon, C, and Gardner, F. 2004. The development and implementation of standards-based reform in university undergraduate science courses: Do they work? Paper presented at the Association of Educators of Teacher of Science, Nashville, Tennessee.

Sunal, D., Sunal, C., Whitaker, K., & Odell, M. (April, 2003) *The Effect of Standards-Based Reform in University Courses on Undergraduate Knowledge*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois.

Teasdale, J., Odell, M.R.L., Klett, M.K., Badger, S., Ewers, T.J. and Graves, S. 2004. Lewis and Clark Rediscovery Lifelong Learning Online. Paper presented at the National Science Teachers Association Conference. Atlanta, Georgia

Odell, M.R.L., 2003., Idaho GLOBE: Implementing the science standards through preservice teacher education. Poster presented at American Geophysical Union Meeting, San Francisco, California.

Sunal, D., Sunal, C., Sundburg, C., Odell, M.R.L., Bland, J, and Seale, A. 2002. Effects of changing college level science courses to reflect national science education standards on undergraduate science knowledge: The Nature of Science. Paper presented at the National Association of Research in Science Teaching Conference. New Orleans, Louisiana.

Odell, M.R.L., Abbitt, J. and Ruchti, W. 2002. E-Learning: Research of Latest Findings, Paper presented at the Western Interstate Commission for Higher Education Conference.

Odell, M.R.L. 2002. Science Misconceptions, Diagnosis and Remediation. Paper presented at the Idaho Science Teachers Association Conference, Hailey, Idaho.

Odell, M.R.L. & Kennedy, T.J. (2002). "Idaho Space Grant Education Outreach Opportunities." Aerospace Technology Symposium, University of Nebraska at Omaha Aviation Institute (UNOAI) Monograph Series, Report 02-5.

Ruchti, W, and Odell, M.R.L. 2002. Using web-based module to teach science process skills to preservice teachers. Paper presented at the National Science Teachers Association Conference. Portland, Oregon.

Teasdale, J., Odell, M.R.L., Klett, M.K., Badger, W., Kennedy, T.J. and Graves, S. 2002. Lifelong Learning Online. Paper presented at the National Science Teachers Association Conference. Portland, Oregon.

Odell, M.R.L., 2002. Strategies for Meaningful Learning in Mathematics and Science, Paper presented at the Bridges to Learning Conference, Boise, Idaho.

Kennedy, T.J., Odell, M.R.L., and Klett, M.D. 2001. Internet En Las Escuelas De Estados Unidos: Una Perspectiva Desde El Programa GLOBE. Paper presented at the Congreso de Educa Red, Madrid, Spain.

Sunal, D., Sunal, C., Trundle, K., Geisen, J., Badger, W., and Odell, M.R.L. 2001, Psychological and sociological factors involved in the construction of meaning in online learning. Paper presented at the American Educational Research Association, New Orleans, Louisiana.

Sunal, D., Sunal, C., Staples, S., Trundle, K., Sundburg, C., Shwery, C., and Odell, M.R.L. 2001, Effective Pedagogy for Online Learning Environments. Paper presented at the 7<sup>th</sup> Sloan International Conference for Online Learning, Orlando, Florida.

Ruchti, W.P. and Odell, M.R.L., 2001. Comparison of Online and Classroom Instruction in an Elementary Science Methods Course. Paper presented at the Northern Rocky Mountain Educational Research Association Conference, Jackson Hole, Wyoming.

Ruchti, W., Crawford, S., Odell, M., Mays, A., Sunal, D., Sunal, C., Sundberg, C., Dwyer, W., & Staples, K. (2001). *Results of research on online learning: University of Idaho and University of Alabama*. Tuscaloosa, AL: University of Alabama Science Teaching and Learning Center.

Alexander, G., Kennedy, T.J., and Odell, M.R.L., 2001. Developing a Center for Online Interactive Learning, Research and Development. Paper presented at the Open and Distance Learning Association, Australia, 2001.

Kennedy, T.K., Odell, M.R.L., Sharp, R., and Sharp J., 2001. Enhancing Preservice Teacher Preparation Through the Integration of Technology and the Internet. Paper presented at the Second International Conference on Technology in Teaching and Learning in Higher Education, Samos Island, Greece.

Davis, J. C., and Odell, M.R.L. 2001. Teaching Science Process Skills: An Alternative to the Scientific Method. Paper presented at the NSTA Regional Conference, Salt Lake City, Utah.

Kennedy, T, and Odell, M.R.L. 2000. Integrating Science and Language. Paper presented at the AATSP Conference, San Juan, Puerto, Rico.

Odell, M.R.L. and Kennedy, T.J. 2000. The Idaho GLOBE Program, Paper presented at the NSTA Regional Conference, Boise, Idaho.

Odell, M.R.L. and Kennedy, T.J. 2000. The Idaho Virtual Campus, Paper presented at the NSTA Regional Conference, Boise, Idaho.

Davis, J., Odell, M., Kearney, R., Kennedy, T., Graves, S., Abbitt, S., Sharp, J., 1999. The Idaho Virtual Campus. Poster presented at the WebNet World Conference, Honolulu Hawaii.

Kennedy, T., and Odell, M.R.L. 1999. Foreign Language in Earth Systems Science. Paper presented at the NASA Earth Systems Conference, Austin, Texas.

Klett, M., Odell, M.R.L., and Graves, S.G. 1999. Raising Self-confidence of Preservice Teachers in Alternative Clinical Settings. Paper presented at the NSTA National Convention, Boston, Massachusetts.

Sunal, D., Sunal, C., Hodges, J., Freeman, L., Whitaker, L., Edwards, L., Johnston, R., Odell, M., and

Kearney, R. 1999. College SMET Courses for the Next Millennium. Paper presented at the NSTA National Convention, Boston, Massachusetts.

Sunal, D., Sunal, C., Hodges, J., Freeman, L., Whitaker, L., Edwards, L., Johnston, R., Odell, M., and Kearney, R. 1998. Innovative Instructional Strategies for College Science Courses. Paper presented at the NSTA Southern Area Convention, Birmingham, Alabama.

Odell, M.R.L., Kearney, R., Klett, M., Kennedy, T., and Graves, S. 1998. Idaho Science Technology Education Project. Paper presented at the NSTA National Convention, Las Vegas, Nevada.

Odell, M.R.L., Kearney, R., Klett, M., and Graves, S. 1998. Idaho NOVA Project. Paper presented at the NSTA National Convention, Las Vegas, Nevada.

Odell, M.R.L., Kearney, R., and McKinnon, C. 1998. NASA Opportunities for Visionary Academics (NOVA). Paper presented at the NSTA National Convention, Las Vegas, Nevada.



Odell, M.R.L., and Dasch, E.J. 1997. The National Education Standards and the National Space Grant Program. Paper presented at the AETS Conference, Cincinnati, Ohio.

Odell, M.R.L., Dasch, E.J., and Sadeh, W.Z. 1996. The U.S. National Education Standards and the National Space Grant Program. Paper presented at the International Astronautical Federation Congress, Beijing, China.

Blurton, C., Ostendorf, L., and Odell, M.R.L. 1996. Mission to Planet Earth: Online Earth Systems Science Course. Paper presented at the IGARSS Conference, Lincoln, Nebraska.

Odell, M.R.L., and Popiel, E.L. 1996. The Idaho Science Technology Project (ISTEP): A Model for Training Teachers. Paper presented at the ICTE Convention, New Orleans, Louisiana.

Odell, M.R.L., and Popiel, E.L. 1995. The Relationships among Three-Dimensional Laboratory Models, Gender, Spatial Visualization Ability, and Junior High Earth Science Achievement: Examining Models. Paper presented at the NRMERA Convention, Jackson Hole, Wyoming.

Mowrer-Popiel, E.L., Odell, M.R.L., Mayer, M., and Graham, J. 1995. Teachers, Technology, and Donkey Kong: Implications for Mathematics and Science Education in the Nineties. Paper presented at the NWATE Convention, Coeur d'Alene, Idaho.

Odell, M.R.L. 1994. The Relationships among Three-Dimensional Laboratory Models, Gender, Spatial Visualization Ability, and Junior High Earth Science Achievement. Paper/poster presented at the MWERA Convention, Chicago, Illinois.

Odell, M.R.L., Worch, E.A., and Hewitt P. 1994. Three-Dimensional Modeling for Spatial Learning. Paper presented at the NSTA Convention, Anaheim, California.

Odell, M.R.L., and Boone, W.J. 1994. Eighth Grade Students' Attitudes towards Geology: A Survey. Paper presented at the NSTA Convention, Anaheim, California.

Mowrer-Popiel, E., and Odell, M.R.L. 1994. Gender Stereotyping and the Preservice Educator. Paper presented at the NWATE Convention, Coeur d'Alene, Idaho.

Odell, M.R.L., Hewitt, P., Bowman, J., and Boone, W. 1993. Stereotypical Images of Scientists: A Cross Age Study. Paper presented at the NSTA Convention, Kansas City, Missouri.

Worch, E.A., Odell, M.R.L., Gabel, D., and Boone, W. 1993. Saturday Science QUEST: Enhancing Pre-Service Science Teaching and Children's Science. Paper presented at the AETS Convention, Kansas City, Missouri.

Odell, M.R.L., Lane, N.G., and Gabel, D. 1992. Q400: Indiana University's Integrated Science Course for Preservice Teachers: The Geology Component. Paper presented at the GSA Convention, Cincinnati, Ohio.

Odell, M.R.L., Worch, E.A., Svec, M.T., and Gabel, D. 1992. Saturday Science QUEST: Enhancing Pre-Service Science Teaching. Poster presented at the WISE Conference, Bloomington, Indiana.

Kennedy, T.J., Odell, M.R.L., and Klett, M.D. 2001. Internet en las escuelas de Estados Unidos: una perspectiva del programa GLOBE. Congreso de EducaRed-Foro de la Escuela Virtual, Ministerio de la Educacion, Madrid Espana.

Odell, M.R.L., Kennedy, T., and Kearney, R. 1999. The NOVA Program. NASA Earth Systems Conference, Austin, Texas.

Odell, M.R.L. 1998. The NOVA Program. AGU Linkages Conference, Tucson, Arizona.

Odell, M.R.L. 1997. Panel member, The GLOBE Program. NSTA National Convention, New Orleans, Louisiana.

**Technical Reports:**

Odell, M.R.L. (2020). Internal Evaluation of AISD Middle School Turnaround Initiative (unpublished Evaluation Report Submitted to Austin ISD). Austin, Texas.

Odell, M.R.L and Stocks, (2019). External Evaluation Report for UT Arlington Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Arlington, Texas.

Odell, M.R.L., Sullivan, J. et. al. (2019). Integrating Professional Growth into the School Day. 100Kin10. <https://grandchallenges.100kin10.org/progress/100kin10-project-team-integrating-professional-growth-into-the-school-day>

Odell, M.R.L and Stocks, (2019). External Evaluation Report for University of Alabama Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Tuscaloosa, Alabama.

Odell, M.R.L and Stocks, (2018). External Evaluation Report for University of Alabama Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Tuscaloosa, Alabama.

Odell, M.R.L and Stocks, (2018). External Evaluation Report for University of West Georgia Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Carrollton, Georgia.

Culclasure, B., Odell, M. and Stocks, E. (2017). New Tech Network Evaluation Report: 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> Grade Data (2015-16). Expanded Evaluation Sample (unpublished Evaluation report submitted to US ED). Greenville, SC: Furman University.

Odell, M.R.L and Stocks, (2017). External Evaluation Report for University of Alabama Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Tuscaloosa, Alabama.

Odell, M.R.L and Stocks, (2017). External Evaluation Report for University of West Georgia Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Carrollton, Georgia.

Odell, M.R.L., (2017), The University of Texas at Tyler Teacher Residency Program, 100Kin10 Working Papers.

Odell, M.R.L and Stocks, (2016). External Evaluation Report for University of Alabama Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Tuscaloosa, Alabama.

Odell, M.R.L and Stocks, (2016). External Evaluation Report for University of West Georgia Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Carrollton, Georgia.

Odell, M.R.L and Stocks, (2015). External Evaluation Report for University of Alabama Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Tuscaloosa, Alabama.

Odell, M.R.L and Stocks, (2015). External Evaluation Report for University of West Georgia Noyce Scholars Program (unpublished Evaluation Report submitted to NSF). Carrollton, Georgia.

Nelson, J.K., Odell, M.R.L., & Kennedy, T.J. (2013). Verhoef Aluminium Scheepsbouw Industries, V. College of Engineering and Computer Science Research Report: CECS-2013-05.

Odell, M.R.L., Nelson, J, and Trampus, K, (2008), The East Texas STEM Center Strategic Plan. Submitted to the Texas Education Agency and the Community Foundations of Texas.

Odell, M.R.L., Whitaker, K., Sunal, D., and Abbitt, J. Final Report: NASA Opportunities for Visionary Academics (submitted to NASA Headquarters), September 30, 2006.

Odell, Michael R. L. 2003. KSC Education Technology Research and Development Plan. NASA CR-2003-211527

Sunal, D., Odell, M.R.L., Mays, A., and Vernon, F., 2001. *Evaluation of an Online ESS-NOVA Middle School Earth Science Course*. Report to NASA Headquarters.

Ewers, T., Odell, M.R.L., Klett, M.D., Graves, S.M., Davis, J.C., Davis, A., Ophus, J., Thornhill, A., 2001. *The Status of K-12 Mathematics and Science in Idaho: Student Course taking Patterns and Teacher Certification*. Report to the Idaho State Department of Education.

Davis, A. and Odell, M.R.L. Revision of *Teacher Preparation Standards for Teachers*. 2001. Report to the Idaho State Board of Education.

Davis, A. and Odell, M.R.L. 2001. *Summary Report: Statewide Public Assessment Inquiry*. Report to the Idaho State Board of Education.

NASA Opportunities for Visionary Academics: The First Five Years. 1995-2000, National Aeronautics and Space Administration, Washington, DC. (Editor).

Odell, M.R.L., and Freeman, M. 1997. Project Nova: Creating Change in Higher Education. *NASA MTPE Education Reports*, April.

Odell, M.R.L., and Kearney, R. 1997. Idaho GLOBE: An ESS Model for Preservice Science Education. *NASA MTPE Education Reports*, April.

Kay, R., Carlson, S., Craig, J., Humphries, R., McCurdy, M., Odell, M., Ollie, M., Reich, C., Singletary, T., Toole, C., Volkening, L., Weaver, D., Wright, S., and Zoller, S. 1994. *Idaho K-12 Science Content Guide and Framework*, Idaho State Department of Education, Boise, Idaho.

Proceedings, *Fourth National Space Grant/NASA EPSCoR Conference Report*, National Aeronautics and Space Administration, Washington, DC, 1996. (Editor).

#### **Invited Professional Meeting Papers and Presentations:**

Bourgeault, J., Odell, M.R.L., 2019. (Panelist). US Student Research Symposia: Four Years of Development, Growth, and Building Sustainability. International Globe Conference, Detroit, Michigan.

Odell, M.R.L. 2019. (Keynote). The STEM Education Landscape. LBJ Institute, Texas State University.

Odell, M., 2016. Careers in STEM Education, Tyler Junior College.

Snook, D. and Odell, M.R.L., 2014, Innovative Models Panelist: Early College High School, 4<sup>th</sup> Annual Education Productivity Forum, George Bush Library, Dallas, Texas.

Odell, M.R.L., 2014, The NSTA Learning Center. Association of Science Teacher Educators (ASTE) , San Antonio, Texas.

Odell, M.R.L., 2013, The NSTA Learning Center. National Science Teachers Association (NSTA), San Antonio, Texas.

Odell, M.R.L., 2012, The NSTA Learning Center. National Science Teachers Association (NSTA), Indianapolis, Indiana.

Odell, M.R.L., 2012, Evaluation of the UT Tyler MSTTPA Program: Promising Practices, MSTTPA/THECB Conference El Paso, Texas.

Odell, M.R.L., 2011, The NSTA Learning Center. National Science Teachers Association (NSTA), San Francisco, California. Odell, M.R.L., 2010, The NSTA Learning Center TCEA. Austin, Texas.

Odell, M.R.L. 2009, Fontenot, D., Tribett, K, and Trampus 2009, Vertical Alignment and College Readiness. Association of School Administrators Mid-Winter Conference, Austin, Texas.

Capraro, R., Odell, M.R.L., and Trampus 2009, What T-STEM Centers do for your School District. Texas Association of School Administrators Mid-Winter Conference, Austin, Texas.

Odell, M.R.L., 2008, College Readiness Standards for Science, The Charles A. Dana Center's Annual Mathematics and Science Higher Education Conference, Austin, Texas.

Odell, M.R.L., 2008, Education in a Flat World, UT-Tyler Fundraising Luncheon. Tyler, Texas

Odell, M.R.L., 2008, Education in a Flat World, Palestine Chamber of Commerce. Palestine Texas,

Odell, M.R.L. 2008, East Texas STEM Center, East Texas Workforce Commission, Longview, Texas

Odell, M.R.L. 2007, Panel Discussion, Education Opportunities, American Meteorological Society Student Conference, San Antonio, TX

Odell, M.R.L. 2006, GLOBE: Ten Years of Student Inquiry, Keynote Presentation: SW-ASTE Conference, Wichita, Kansas.

Odell, M.R. L., 2006, Education Reform, Phi Delta Kappa, University of Texas at Tyler.

Michie, G., Odell, M.R.L., Moore, M., Johnson, B., and Witucke, C. 2006. The Start of Something Big: Little Village-A Community-Based Urban PDS. The 10<sup>th</sup> Annual Holmes Partnership Conference. Chicago, Illinois.

Odell, M.R.L., 2005, NASA Resources to Support Science Teaching, Conference on Teaching Elementary Science: Developing Models of Collaboration among Schools, Colleges and Scientists. Wheelock, College, Boston, Massachusetts.

Odell, M.R.L., 2005, State Standards Alignment with GLOBE Protocols and Learning Activities, GLOBE Learning Communities Conference, Corpus Christi, Texas.

Odell, M.R.L., 2005, State Partnerships with Higher Education Preservice Programs and PDS Schools, GLOBE Learning Communities Conference, Corpus Christi, Texas.

Odell, M.R.L., 2005, Connecting GLOBE Student Data to the Community, GLOBE Learning Communities Conference, Corpus Christi, Texas.

Odell, M.R.L. 2005, The Idaho Virtual Campus, Educating the NET Generation Symposium, Moscow, Idaho.

Odell, M.R.L. & Kennedy, T.J., 2004. The GLOBE Program. Partnerships in Education Instruction and Professional Development Conference (PIE), Lewiston, Idaho.

Odell, M.R.L., 2004, Idaho GLOBE, 8<sup>th</sup> Annual GLOBE Conference (Proceedings).

Odell, M.R.L. 2004, Idaho Space Grant Consortium. Senator Mike Crapo's Math, Science and Technology Education Symposium: Charting the Course of Idaho's Children, Boise, Idaho

Odell, M.R.L. 2002. NOVA: Coordinating a national NASA project on the Internet. Making Connections II Conference, Columbus, Georgia.

Odell, M.R.L. 2001. Unlearning What You Think You Know: Science Education at the University of Idaho. College of Education Advisory Board Conference, Moscow, ID.

Odell, M.R.L. and Kennedy, T.J. 2001. Learning to Diagnose and Remediate science Misconceptions, Alaska State Mathematics and Science Teachers Conference, Anchorage, Alaska.

Odell, M.R.L., 2001. Science Education Update. College of Education Advisory Committee. University of Idaho, Moscow, Idaho.

Freeman, L.M., Odell, M.R.L., Romeo, J.T. and Walton, E. 2000. The NOVA Program. Title II Project Directors Meeting, US Department of Education, Crystal City, Virginia.

Odell, M.R.L., 2000. The Palouse Discovery Science Center, Lions Club Luncheon, Moscow, Idaho.

Odell, M.R.L., 1999. The Institute for Mathematics, Interactive Technologies, and Science (exhibit). Idaho Science Teachers Conference, Coeur d'Alene, Idaho.

Odell, M.R.L., 1999. The Institute for Mathematics, Interactive Technologies, and Science. Research Seminar; Resource, Recreation and Tourism.

Odell, M.R.L., 1999. The Idaho Virtual Campus. Region I & II Superintendent Meetings.

Odell, M.R.L., Kennedy, T.J., Graves, S.M., and Abbitt, J.T. 1998. Global Learning and Observations to Benefit the Environment. Idaho Science Teachers Association Conference, Boise, Idaho.

Odell, M.R.L., Kennedy, T.J., Graves, S.M., and Abbitt, J.T. 1998. The Idaho Virtual Campus. Idaho Science Teachers Association Conference, Boise, Idaho.

Kennedy, T.J., Odell, M.R.L., Graves, S.M., and Abbitt, J.T. 1998. Technology and the One Room School House. Phi Delta Kappa International Conference, Calgary, Canada.

Odell, M.R.L., and Kennedy, T.J. 1998. The Idaho GLOBE Franchise Model. Globe Train the Trainers Conference, Missoula, Montana.

Odell, M.R.L., and Kearney, R. 1998. The Idaho Virtual Campus: A Model for Interactive Learning. Inland Northwest Media Conference, Moscow, Idaho.

Odell, M.R.L. 1998. The Idaho Virtual Campus. Idaho Engineering Colloquium, Moscow, Idaho.  
Kennedy, T.J., Odell, M.R.L., and Graves, S. 1997. The Idaho GLOBE Program. Second International GLOBE Conference, Airlie, Virginia.

Singletery, T., Jordan, R., and Odell, M.R.L. 1997. Bringing GLOBE to Your State. National Science Teachers Association National Conference, New Orleans, Louisiana.

Odell, M.R.L. 1997. The National Space Grant College and Fellowship Program. The Aerospace Education Specialists Conference, Johnson Space Center, Houston, Texas, 1997.

Odell, M.R.L., and Albright, J. 1997. The National Science Standards. Kentucky Space Grant Conference/ Kentucky Education Technology Conference, Louisville, Kentucky.

Odell, M.R.L. 1997. The National Space Grant College and Fellowship Program. Invited presentation at the First U.S.-Argentina Conference on Space, Science, and Technology for Society, Buenos Aires, Argentina.

Odell, M.R.L. 1997. The National Science Education Standards. Consortia to Establish Local Science Standards Conference, Nampa, Idaho.

Odell, M.R.L., Klett, M., and Graves, S. 1997. The Idaho Virtual Classroom. The High Performance Computing and Communications Conference (IITA), Dryden Space Flight Center, Lancaster, California.

Odell, M.R.L. 1996. Educational Reform: Issues in Preparing Students for the 21<sup>st</sup> Century. Collegium V, University of Texas-Dallas, Richardson, Texas.

Odell, M.R.L. 1996. Panel member, The GLOBE Program, NSTA Global Summit, San Francisco, California.

Odell, M.R.L. 1996. The University of Idaho NOVA Project. Regional NOVA Conference, Jet Propulsion Laboratory, Pasadena, California.

Odell, M.R.L., Morgan, B. (Teacher in Space), Dugger, W. (Director, Technology for All Americans), Keener-Chavis, P. (SSI Hubs, South Carolina), and Owens, F. (NASA Education Division Director, Moderator). 1996. National Standards (panel). NASA Space Grant/EPSCoR Conference, Williamsburg, Virginia.

Odell, M.R.L. 1996. NASA Opportunities and Idaho. Idaho Space Grant Consortium Conference, Moscow, Idaho.

Odell, M.R.L. 1996. Remote Sensing in the Classroom. Mississippi Space Grant Consortium Conference, Oxford, Mississippi.

Odell, M.R.L. 1996. The National Science Education Standards: An Overview. Presented to the Idaho Academy of Science, Moscow, Idaho.



Odell, M.R.L. 1996. The National Space Grant College and Fellowship Program. Presented at the NASA TRC Annual Conference, Huntsville, Alabama.

Fodor-Davis, J., and Odell, M.R.L. 1995. Idaho Science Education Program and Projects. Presentation at the ISTA Convention, Boise, Idaho.

Odell, M.R.L. 1995. Educational Reform. University of Idaho (ED 201), Moscow, Idaho.

Odell, M.R.L. 1994. Integrated Science, Technology, and Social Studies Methods. Presentation to the Division of Teacher Education, Moscow, Idaho.

Odell, M.R.L. 1994. IdaHOES: Hands-On Elementary Science. Presentation at the ISTA Convention, Boise, Idaho.

Odell, M.R.L. 1994. Professional Development in Science Education. Presentation at the SOARS Conference, McCall, Idaho.

Odell, M.R.L. 1994. Science and Technology Initiatives. Presentation to the College of Education, Moscow, Idaho.

Odell, M.R.L., and Munsch, T. 1993. Science Education at the University of Idaho. Presentation at the ISTA Convention, Jerome, Idaho.

Odell, M.R.L. 1993. Indiana University Saturday Science QUEST. Presentation at the Indiana University Annual Education Conference, Bloomington, Indiana.

Odell, M.R.L. 1992. Scope, Sequence, and Coordination. Presentation, Irving Independent School District, Irving, Texas, 1992.

#### **Patents/Copyrights:**

Graham, J., Abbit, J.T., and Odell, M.R.L. Idaho Virtual Campus Software and Pedagogical Design. Transferred to the University of Idaho Research Foundation for Copyright protection. 2000. License Issued 2001. Rights granted to developers, 2006.

#### **Other Scholarly and Creative Activities:**

##### **Curriculum Development**

Klett, M., Odell, M.R.L., Kennedy, T.J., Ophus, J., Willis, M. & Larsen, J. (2007, July). Comparing Surface And Subterranean Environments. GLOBE Earth System Science Learning Activity.

##### **Program Archives**

National NOVA: <http://education.nasa.gov/nova> (Archived at: <http://www.novaprogram.org>)

##### **Software Development**

Co-Developers: Jason Graham, Jason Abbitt, and Michael Odell

IVC Online Course System 1.0 (1999)

IVC Online Course System 2.0 SQL Based ASP Script (2000)

IVC Candidate Assessment and Accountability Performance System 1.0 (2003)

**Dissertation:**

Odell, M.R.L. 1993. The Relationships among Three-Dimensional Laboratory Models, Gender, Spatial Visualization Ability, and Junior High Earth Science Achievement. *Dissertation Abstracts International*.

**Grants and Contracts Awarded:**

**2019**

Pedersen, J. L., Simmons, J.A. and Odell, M.R.L. (2019). Blended Learning Grant. Texas Education Agency. Initial \$150,000.

Pedersen, J. L., Simmons, J.A. and Odell, M.R.L. (2019). Math Innovation Zone. Texas Education Agency. Initial \$150,000. Continuation, \$135,000.

**2018**

Odell, M.R.L. and Pedersen, J. L. (2018). Scaling and Dissemination of Promising T-STEM Education Practices. Communities Foundation of Texas. \$15,000

**2017**

Marzilli, S. and Odell, M. (2017-21). UT Tyler Greater Texas Foundation Scholars Program. Greater Texas Foundation. \$1.4 Million.

Odell, M.R.L. (2017-19). Noyce Program Evaluation, University of Texas at Arlington, Subcontract, National Science Foundation, \$5000.

**2016**

Delello, J., Odell, M.R.L., Kennedy, T.J., Biswas, M., and Kennedy, T. (2016-18). Orion Journey to Mars: Bringing NASA Programming to Rural Diverse Settings, Texas Space Grant Consortium. \$10,000.

Naizer, G., Odell, M.R.L., Swain, C., and Stocks, E. (2016-17). Teacher Residency Grant (TRES), Texas Higher Education Coordinating Board, \$1.29 Million (UTT Share \$350,000) (Subcontract)

Brown, F. and Odell, M.R.L. (2016-17). Teacher Externship Program: Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$20,000)

Brown, F. Dyer, K. Odell, M.R.L. and Wise, D. (2016-17). Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$140,000)

Bextine, B., Powell, C. and Odell, M.R.L. (2016-18). Wood Borer Research. \$21,000. Texas A&M University.

**2015**

Nelson, J.K and Odell, M.R.L.(2015-17). Life Boat Study. \$9,149. Hatecke Corporation.

Odell, M.R.L. and Kennedy, T.J., GLOBE Science Fair Support (2015-17), UCAR/UNH/NSF, \$11,000.

Odell, M.R.L. 2015. Russell Foundation Gift to Support the Innovation Academy, \$20,000.

Nelson, J.K and Odell, M.R.L.(2015-17). Life Boat Durability Testing. \$70,187. Verhouef Corporation.

Bextine, B., Powell, C. and Odell, M.R.L. (2015-16). Texas CAPS Program, Texas Department of Agriculture. \$40,152.

Odell, M.R.L. and Parkerson, J. M. (2015-16). Recruitment and Mentoring Program, Texas Higher Education Coordinating Board, (\$100,000).

Brown, F. Dyer, K. Odell, M.R.L. and Wise, D. (2015-16). Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$140,000).

## **2014**

Odell, M.R.L. (PI), Parkerson, M. (2014-15). Texas Gear-Up, State of Texas Gear-Up Initiative, University of Texas Austin, (\$90,000).

Brown, F. Dyer, K. Odell, M.R.L. and Wise, D. (2014-15). Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$140,000).

Odell, M.R.L. (PI), Parkerson, M. (2014-15). Ingenuity Center East Texas STEM Center, Texas STEM Initiative, Texas Education Agency, (\$650,000).

Odell, M.R.L. Chevron Gift to support Texas PLTW (\$160,000), 2014-16

Odell, M.R.L. (PI); Brown, F and Wise, D., 2014-15. Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$140,000)

## **2013**

Odell, M.R.L. (PI); Brown, F and Wise, D. (2013-14). Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$150,000).

Blount, K, Odell, M.R.L., Naizer, G., and Stocks, E. (2013-14). Teacher Residency Grant (TRES), Texas Higher Education Coordinating Board, \$1.29 Million (UTT Share \$500,000).

Odell, M.R.L. (PI), Parkerson, M. (2013-14). Ingenuity Center East Texas STEM Center, Texas STEM Initiative, Texas Education Agency, (\$652,000).

Odell, M.R.L. (PI), and Bondurant, D. 2013-14. Scholarship funds for UTeach Students, \$20,000, AT&T Foundation.

Odell, M.R.L. (PI), and Wickham, L. 2013-14. Scholarship funds for UTeach Students, \$25,000, Roosth Foundation.

Odell, M.R.L. (PI), Parkerson, M. 2013-14, Ingenuity Center East Texas STEM Center, Texas STEM Initiative, Texas Education Agency, (\$652,000)

Odell, M.R.L. (PI), Crow, J.E., Dubose, J., Parkerson, M. (2013-2018). UT Tyler After-School Initiative Cycle 8. Texas Education Agency, (\$11,200,000).

Odell, M.R.L. (PI), Crow, J.E., Dubose, J., Parkerson, M. (2013-18). UT Tyler After-School Initiative Cycle-8. Texas Education Agency, (\$11.2 Million).

Odell, M.R.L. (PI); Brown, F and Wise, D., 2013-14. Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$200,000)

**2012**

Odell, M.R.L., Dubose, J. and Baldwin, K. (2012-13). Texas P-16 GENTX Grant. Texas Higher Education Coordinating Board, (\$50,000).

Odell, M.R.L. (PI); Brown, F and Wise, D. (2012-13). Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$200,000).

Odell, M.R.L. (PI); Brown, F and Wise, D., 2012-13. Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$200,000)

Odell, M.R.L., Dubose, J. and Baldwin, K., 2012-13. Texas P-16 GENTX Grant. Texas Higher Education Coordinating Board, (\$50,000)

**2011**

Odell, M. and Moore, J. (2011-15) Project Lead the Way Teacher Assistance Project (PLTW), Texas Education Agency, (\$600,000).

Odell, M.R.L. (PI), Crow, J.E. (2011-2014). UT Tyler TTIPS, Texas Education Agency/Tyler ISD, (\$1,500,000).

Odell, M.R.L. (CO-PI); Nelson, J.K. (Co-PI), Trampus, K., (Co-I), Brown, F. (Co-I), Stocks, E. (Co-I), and Bailey, B. (Co-I), 2011-13, Ingenuity Center, Texas STEM Initiative, Texas Education Agency, (\$800,000)

Odell, M.R.L. (PI), Crow, J.E. (2011-2015). UT Tyler After-School Initiative Cycle 7, Texas Education Agency, (\$8,700,000).

Odell, M.R.L., Kennedy, T.J. and Kulkarni, A. (2011). Earth System Science Workshop. Texas Space Grant Consortium K-12 Grant. (\$14,999).

Odell, M.R.L., Nelson, J.K., Trampus, K., Brown, F., Stocks, E., and Bailey, B. (2011-13), Ingenuity Center, Texas STEM Initiative, Texas Education Agency, (\$800,000).

Odell, M.R.L. (PI), Crow, J.E. (2011-2015). UT Tyler After-School Initiative Cycle 7, Texas Education Agency, (\$8.7 Million).

Odell, M.R.L. (PI); Brown, F and Trampus, E., (2011-12). Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$200,000).

Odell, M.R.L. (PI), Crow, J.E. (2011-2014). UT Tyler TTIPS, Texas Education Agency/Tyler ISD, (\$500,000).

Odell, M. and Moore, J. 2011-12 Project Lead the Way Teacher Assistance Project (PLTW), Texas Education Agency, (\$150,000)

Odell, M.R.L., Kennedy, T.J. and Kulkarni, A., (2011). Earth System Science Workshop. Texas Space Grant Consortium K-12 Grant. (\$14,999).

Odell, M.R.L. (PI); Brown, F and Trampus, E., 2011-12. Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$200,000)

**2010**

Odell, M.R.L., Nelson, J.K., Trampus, K., Brown, F., Stocks, E., Geiger, W. and Bailey, B. (2010-11). East Texas STEM Center, Texas STEM Initiative, Texas Education Agency, (\$550,000).

Odell, M.R.L. and Baldwin, K., 2010-11. Texas P-16 Initiative Grant. Texas Higher Education Coordinating Board, (\$25,000)

Geary, E., Kennedy, T.J., and Odell, M.R.L. (2010) From Learning to Research, NSF ITEST for the GLOBE Program \$1,200,000, (Co-PI and Evaluator).

Bailey, B., Odell, M.R.L., and Brown, F. Noyce Scholars Program. \$897,000. 2010-2015.

Odell, Michael R.L. (PI), Nelson, J, and Trampus, K., East Texas STEM Center, Congressional Grant, \$300,000, 2010.

Odell, M.R.L. (CO-PI); Nelson, J.K. (Co-PI), Trampus, K., (Co-I), Brown, F. (Co-I), Stocks, E. (Co-I), Geiger, W. (Co-I) and Bailey, B. (Co-I), 2010-11, East Texas STEM Center, Texas STEM Initiative, Texas Education Agency, (\$550,000)

Odell, M.R.L. (PI); Brown, F and Trampus, E., 2010-11, Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$99,000)

Odell M.R.L., Sherman, C., Brown, F., 2010, Beginning Teacher and Induction Program (BTIM), Texas Regional Collaborative, Texas Education Agency/UT-Austin, (\$133,000)

Odell, M. and Moore, J. 2010-11 Project Lead the Way Teacher Assistance Project (PLTW), Texas Education Agency, (\$100,000)

Odell, M.R.L., Trampus, K., Gray, N, Bailey, B, 2010, CCRI SEC (\$15,000)

**2009**

Geary, E., Kennedy, T.J., and Odell, M.R.L. (2009) Global Climate Change Research and Education Workshop, \$47,000, 2009.

Odell, M.R.L. (Co-PI); Brown, F and Trampus, E., 2009-10, Texas Regional Collaborative, Texas Education Agency/UT-Austin, \$97,000 Addendum (\$26,000)

Odell, M.R.L., Lamb, J., Smith, N., Gray, N., Kennedy, T., and Bailey, B., 2009-11. Math Science Teacher Preparation Academy, Texas High Education Coordinating Board (\$750,000)

Odell, M.R.L., Sherman, C, Lamb, J., Smith, N., Gray, N., Kennedy, T., Sherman, R. and Bailey, B (2009-14) UTEACH Tyler, National Science Mathematics Initiative/Texas Education Agency (\$1.4 million)  
Odell, M. and Moore, J. 2009-10 Project Lead the Way Teacher Assistance Project (PLTW), Texas Education Agency, (\$200,000)

Odell, M. and Moore, J. 2009-10 Project Lead the Way Teacher Implementation Project (PLTW), Texas Education Agency, (\$1,400,000)

Odell, M.R. L. (PI), GLOBE Fellowship, University Corporation for Atmospheric Research, 2008-09, \$93,000

Odell, M.R.L. (PI); and Stocks, E., 2008-13, Texas Earth Space Science Revolution Evaluation, UT-Austin/NSF, \$125,000

Odell, M.R. L. (PI) and Ippolito, A., Science Competition Grant, UT-Austin/Shell Foundation, \$2000, 2009.

Nelson, J., Odell, M.R.L., Scott, J., and Pleasant, K. Engineering recruitment Program Summer Camps, \$20,000, 2008; \$8,000, 2009

## **2008**

Odell, Michael R.L. (PI), Nelson, J, and Trampus, K., East Texas STEM Center, Congressional Grant, \$148,000, 2008.

Odell, M.R.L. (Co-PI); Brown, F and Trampus, E., 2008-09, Texas Regional Collaborative, Texas Education Agency/UT-Austin, \$97,000

White, A., Nelson, J., Geiger, W., Sherman, C, Bailey, B, Gray, N. and Odell, M. UTEACH Pre-proposal, University of Texas System, \$41,000., 2008.

## **2007**

Odell, M.R.L. (Co-PI); Nelson, J.K. (Co-PI), Trampus, K., (Co-I), Brown, F. (Co-I), Stocks, E. (Co-I), Geiger, W. (Co-I) and White, A. (Co-I), 2007-10, East Texas STEM Center, Texas STEM Initiative, Texas Education Agency, \$3.25 million.

Odell, M.R.L. (Co-PI); Brown, F and Trampus, E., 2007-08, Texas Regional Collaborative, Texas Education Agency/UT-Austin, \$97,000

Odell, M.R.L.(PI), and Lauman, J. (Co-PI), Earth Systems Online, ESSEA/ NSF, 2007, \$40,000.

Odell, M.R.L. (PI), Texas Science Vertical Team, Texas Education Agency, 2007, \$15,000.

Brown, F. (PI) and Odell, M.R.L. (Co-PI), Texas Regional Collaborative for Science. University of Texas at Austin/Texas Education Agency, 2007-10, \$300,000.

Odell, M.R. L. (PI), GLOBE Fellowship, University Corporation for Atmospheric Research, 2007-08, \$68,000.

## **2006**

Teasdale, J., and Odell, M.R.L. NASA Opportunities for Visionary Academics (NOVA), NASA/UA \$11,000. 2006.

Odell, M.R. L. (PI), GLOBE Annual Conference, University Corporation for Atmospheric Research, 2006, \$34,000.

## **2005**

Odell, M.R.L. (PI), Kit-based Science Education. Idaho MSP Project. \$ 71,000. 2005

## **2004**

Odell, M.R. L (PI). and Doty, M., Idaho STEM Access (2004). National Science Foundation. \$100,000.

Ewers, T. and Odell, M.R.L. (Co-PI), Classroom Assessment of Mathematical Performance. \$239,241. 2004-2005.



Odell, M.R.L (CO-PI), and Abbitt, J.T., NASA Opportunities for Visionary Academics (NOVA), NASA/UA \$110,000. 2004-2005.

### **2003**

Odell, M.R. L. (PI) and Kennedy, T.J., NW Inland Science Curriculum Dissemination Hub. EDC/NSF, \$15,000. 2002-03. \$25,000, 2003-04.

Hollenhorst, S., Fizzell, G. and Odell, M.R.L (Co-Pi). (2003) McCall Outdoor Science School (MOSS). EPA \$70,000.

### **2002**

Dyer, M., Gunter, M., Odell, M.R.L. (Co-PI) and Davis, J., Optical Mineralogy Textbook, NSF/Holyoke College Grant, \$417,000. 2002-04.

Odell, M.R.L. (PI) and Kennedy, T.J., Global Learning and Observations to Benefit the Earth, Eisenhower. \$16,500. 2002.

Kennedy, T.J., Klett, M.D, and Odell, M.R.L. (Co-PI), Pathways to Mars, Eisenhower. \$16,000. 2002.  
Odell, M.R.L. (PI), and Thornhill, A. Science and Mathematics Integrating Technology, Eisenhower. \$33,000. 2002.

Odell, M.R.L. and Davis A.(2004) Access Science, Technology, Engineering, and Mathematics (STEM) in Idaho, National Science Foundation (\$100,000)

Ewers, T., Kmitta, D., Davis, J, and Odell, M.R.L., Classroom Assessment of Mathematics Performance. Eisenhower. \$43,000. 2002.

### **2001**

Teasdale, J., Odell, M.R.L. (Co-PI), Thomson, S., and Meyers, R. Lifelong Learning Online, Congressional Grant, NASA Headquarters, \$2,000,000. 2001.

Odell, Michael R. L. (PI), Kennedy, T.J., and Sunal, D., National Center for Online Learning Research (NCOLR), Congressional Grant. \$900,000. 2001.

Odell, M.R.L. (PI) and Kennedy, T.J.K., Global Learning and Observations to Benefit the Earth, Eisenhower. \$24,500. 2001.

Odell, M.R. L. (PI) and Kennedy, T.J., Implementing and Aligning Science Curriculum, Eisenhower. \$15,190. 2001.

Kennedy, T.J., Klett, M.D., and Odell, M.R.L., Pathways to Mars, Eisenhower. \$18,000. 2001.  
Nelson, R. and Odell, M.R.L., Exploring Cultural and Historical Outlooks (ECHO), Columbia Education Center \$65,000 (non-UI). 2001.

### **2000**

Odell, M.R. L., Constructing Physics understanding (CPU), (2000) Subcontract from SDSU/NSF, \$32,000.

Odell, M.R.L. (PI) and Kennedy, T.J., Global Learning and Observations to Benefit the Earth, Eisenhower State Department of Education. \$34,000, 2000.

Dyer, M., Gunter, M., Odell, M.R.L (Co-PI). and Davis, J., Optical Mineralogy Textbook, National Science Foundation Proof of Concept Grant, \$65,000. 2000.

Teasdale, J., Odell, M.R.L (Co-PI)., Thomson, S., and Meyers, R. Lifelong Learning Online, Congressional Grant, NASA Headquarters, \$2,000,000. 2000.

Odell, M.R.L. (Co-PI), NOVA-MUSPIN, University of Alabama/NASA, \$16,000. 2000.

Odell, M.R.L.(PI), Kennedy, .T.J., and Gentry, D. Interactive Learning Environments, LAAP/FIPSE US Department of Education \$1.25 million, 2000.

#### **Prior to 2000**

Kennedy, T.J. and Odell, M.R.L., Inland Northwest Curriculum Dissemination Center, Subcontract from EDC/NSF, \$30,000. 1999-02.

Shreeve, J., Odell, M.R.L., and Ewers, T., Idaho Science Teachers as Researchers, Idaho EPSCoR Program, \$30,000. 1999-01.

Gentry, D., Tuchscherer, J., Odell, M.R.L.(Co-PI), Davis, J., Kennedy, T.J., and Kearney, R., Idaho Preparing Tomorrow's Teachers Today (IPT<sup>3</sup>) US Department of Education. \$1.2 million, 1999-03.

Nelson, R., and Odell, M.R.L., Expanding Cultural Horizons and Outlooks Grant, International Fulbright, (non-UI). 1999-02.

Gentry, D., Odell, M.R.L.(Co-PI), and Graves, S., LC 2000 project, US Department of Education/Potlatch, \$2.1 million, 1999-04.

Odell, M.R.L.(PI) and Kearney, R, Constructing Physics Understanding (CPU) Project, Subcontract Grant NSF/SDSU. \$17,000. 1997.

Kearney, R.J., and Odell, M.R.L. (Co-PI), Constructing Physics Understanding (CPU) Project, Subcontract Grant NSF/SDSU. \$40,000. 1996.

Gentry, D, et al. Teacher Education Redesign, Albertson Foundation Grant, \$ 750,000. 1999-02.

Odell, M.R.L. (PI), Windows on the Universe. Proposal on behalf of Palouse Science Center. Services funded by the Challenger Center. 1999-2001.

Odell, M.R.L. (PI), NOVA Online Earth Systems Science, NASA. \$100,000. 1999-03.

Odell, M.R.L. (PI), Earth Observing System Project, Subcontract from UM/NASA, \$75,000. 1999-03.

Kennedy, T.J. and Odell, M.R.L., Model for the 21<sup>st</sup> Century: Pine Project, PDK Service Project. \$1,000. 1998.

Odell, M.R.L. (PI)., and Kearney, R., Idaho Virtual Campus-Extension, SBOE. \$148,000. 1998.

Kennedy, T.J. and Odell, M.R.L., FLES, State Board of Education Innovative Grants, Moscow School District. \$10,000. 1998.

Odell, M.R.L., (PI) Idaho GLOBE/MTPE, Idaho Space Grant Consortium. \$5,000. 1998.

Odell, M.R.L. (PI) and Kearney, R, Idaho Construction Physics Understanding (ICPU), IKE. \$27,500. 1998.

Odell, M.R.L., NASA COTF/ISGC Agreement to Pilot Online Professional Development Course. \$9,200. 1997.

Odell, M.R.L., (Co-PI) NOVA: Creating Change in Higher Education, Subcontract NASA/UA. \$107,000 Annually to UI. (\$4,516,224 total project). 1997-2000.

Odell, M.R.L.(PI), NASA NEWEST/NEWMASST Summer Aerospace Education Course to NASA Headquarters. \$33,750. 1997.

*Teasdale, J.T., Atkinson, D. and Odell, M.R.L.(Co-PI), Idaho Space Grant Consortium, NASA, \$250,000 Annually. 1996-2005.*

Odell, M.R.L.(PI), NASA Space Grant College and Fellowship Program Training Grant. \$150,000. 1995-97.

Odell, M.R.L. (PI), Idaho GLOBE/MTPE, Idaho Space Grant Consortium. \$5,000. 1997.

Odell, M.R.L. (PI), IdaHOES-IV, Hands-On Elementary Science, Eisenhower Grant. \$27,250. 1997.

Yamamoto, L. and Odell, M.R.L., CELLSS, Consortium to Establish Local Level Science Standards, Eisenhower Grant. \$34,000. 1997.

Yamamoto, L. and Odell, M.R.L., CELLSS, Consortium to Establish Local Level Science Standards, SMCNWS Grant. \$5,000. 1997.

Odell, M.R.L. (PI) and Kearney, R, Idaho Virtual Campus, UI/ISU/ISGC SBOE Technology Proposal for Faculty Enhancement and Online Course Development. \$650,000. 1997-2000.

Odell, M.R.L. (PI), CPU Constructing Physics Understanding, Eisenhower Grant. \$33,000. 1997.

Odell, M.R.L., GLOBE Franchise Agreement for Teacher Enhancement. Joint project with BSU and CSI. 1996.

Odell, M.R.L (PI), NASA Project NOVA: Integrated Science, Technology, and Mathematics, NASA/UA Subcontract Proposal. \$29,000. 1996.

Kearney, R.J., and Odell, M.R.L. (Co-PI), Idaho Virtual Classroom, UI/ISU/ISGC SBOE Technology Grant for Faculty Enhancement and Online Course Development. \$153,000. 1996.

Odell, M.R.L. (PI) and Kennedy, T.J., Idaho Hands-On Elementary Science (IDAHOES III), State Eisenhower Proposal. \$34,207. 1995.

Odell, M.R. (PI) and Kearney, R.J., Teacher Enhancement in Physics Education (TEPE), State Eisenhower Grant. \$26,640. 1995.

Odell, M.R.L. (PI), Idaho Hands-On Elementary Science (IDAHOES North), State Eisenhower Grant. \$28,556.1995.

Popiel, E. and Odell, M.R.L., Learning Styles Inventory as an Aid to Student Success in a Peer Mentoring Program. Phi Delta Kappa Grant. \$200. 1995.

Odell, M.R.L. (PI), Idaho Hands-On Elementary Science (IDAHOES), State Eisenhower Grant. \$21,530. 1994.

Odell, M.R.L., Integrated Science/Technology/Social Studies Methods for Elementary Teachers, Teaching Learning Grants, University of Idaho. \$1,500. 1994.

Gentry, D., Davis, J. and Odell, M.R.L. Educational Technology Grant, Idaho State Board of Education, Enhancement of technology and technology education at the University of Idaho (Line Item). \$150,000. 1994.

Davis, J. and Odell, M.R.L., Instructional Enhancement Mini-Grant to upgrade classroom equipment, University of Idaho. \$1,060. 1994.

Odell, M.R.L. and Mulholland, J., Fossil Hunt, integrating video cameras, video disc technology, Macintosh, Apple, IBM computers, and other technology to take field trip to Western US without leaving the classroom, GTE Growth Initiatives for Teachers (GIFT). \$15,000. 1987.

#### **Technical Assistance**

##### ***Research and Development for Third Parties (Funded or Approved)***

#### **2020**

- Austin ISD, School Improvement Grant (\$119,000)

#### **2019**

- Principal Preparation Grant for UT Tyler School of Education. (\$300,000)
- Research Design Assistance for Publication for Dr. Kennedy and Shuang Mei Gao (Faculty Exchange Scholar). Paper Accepted.
- Everyone:1 Grant for Austin ISD. (Chromebook 1:1 Initiative) (\$120,000 in Equipment)
- Austin ISD. Dove Springs Foundation Grant. (\$5000)

#### **2018**

- Lawson Academy Charter School, TEA Transformation Fund Planning Grant. (\$250,000)
- Texas STEM Coalition, TEA S.B. 1882 School Turnaround Contract. (\$10,000,000)
- Texas STEM Coalition, University of Alabama NSF LIST Proposal. (\$700,000)
- Austin ISD, TEA Transformation Implementation Fund Grant, 2018. (\$1,000,000)
- New Somerfield ISD, TEA 21<sup>st</sup> Century Cycle 10, 2018. (\$400,000)
- Chapel Hill ISD, TEA Grow Your Own Initiative, 2018. (\$150,000)

#### **2015**

- University of West Georgia, UTeach Replication, Georgia Board of Regents.
- University of West Georgia, STEM Grant, Georgia Board of Regents.

#### **2014**

- Ysleta ISD, 21<sup>st</sup> Century Grant Cycle 8/9, 2014.

## 2011

- Tyler Independent School District, TEA TTIPS, 2011. (\$500,000)

### Charter Applications

- University of Texas at Tyler, Virtual Senior High School Expansion Charter, 2017 (Approved by TEA)
- Texas A&M Commerce, TEA Charter School Application, 2016 (Approved by Texas SBOE and TEA).
- University of Texas at the Permian Basin, TEA Charter School Application, 2012 (Approved by SBOE and TEA).
- University of Texas at Tyler Innovation Academy (now University Academy), 2011 (Approved SBOE and TEA).

### Negotiated Contracts/Fee for Services (2010-Present)

Birdville ISD, \$8,000; Fort Worth ISD (\$79,000); Eustace ISD (\$100,000); Mission ISD (\$45,000); Tyler ISD, (\$100,000); Greenville ISD (\$100,000); SW Charter Schools (\$21,000); UT Permian Basin Stem Academy (\$140,000); Texas Commission on Environmental Quality (\$500,000).

### Development Gifts for STEM Programs

- Russell Foundation Gift to Support the Innovation Academy, (\$20,000), 2016.
- Chevron Gift to support Texas PLTW (\$160,000), 2014-16
- Scholarship funds for UTeach Students, (\$20,000), AT&T Foundation. 2013-14.
- Scholarship funds for UTeach Students, (\$25,000), Roosth Foundation. 2013-14

### Endowment Management

Sam and Celia Roosth Endowment, \$750,000 and growing. Annual interest generated is approximately \$30,000 annually invested into STEM initiatives.

### BOARD SERVICE:

<b>Board</b>	<b>Type</b>	<b>Position</b>	<b>Years</b>
University Academy School Board	Public Charter School Board	UT Tyler Designee Board Secretary	2012-Present
Lyceum Education Foundation	501c3	Treasurer	2021-Present
Southshore HOA	501c3	Board Member	2020-Present
Discovery Science Place	501c3	Ex-Officio UT Tyler Representative 4x4 Leadership Council Member	2012-18
UTeach STEM Educators Association	501c3 (Application Pending)	Past President Board President Vice President Chair, Leadership Development Committee	2018-19 2017-18 2016-17 2016-17
Texas STEM Center Coalition	501c3	Treasurer 2017- 2019 President 2013 Conference Co-Chair	2007-Present
National Alliance of State Science	501c3	Board President	2013-15

and Mathematics Coalitions		Board Member	2010-12
Hemingway Learning Institute – Sun Valley Idaho	501c3	Board Member	1999-2004
Palouse Discovery Science Center	501c3	Founding Board Member	1997-98

**Selected Major Committee Assignments:**

<b>Committee</b>	<b>Organization</b>	<b>Position</b>	<b>Years</b>
<b><i>International and National</i></b>			
GLOBE Regional Revitalization Working Group	Globe.gov	Member	2019-Present
GLOBE Program Preservice Working Group	Globe.gov	Member	2019-Present
GLOBE Student Research Symposium	Globe.gov	Member	2019-Present
Preservice Teacher Committee	National Science Teachers Association (NSTA) Ad Hoc Student Chapters	Member	2016-18 2019-2020
100Kin10 Working Group: Embedded Professional Growth to support STEM Teachers	100Kin10.org	Co-Chair	2018-2020
<b><i>State Committees</i></b>			
Middle School Science TEKS Review and Revision Committee	Texas Education Agency State Board of Education	Member	2020
Texas Regional Collaborative Advisory Committee	University of Texas at Austin	Member	2014-17
High School Science TEKS Review and Revision Committee (ESS/Astro)	Texas Education Agency State Board of Education	Member	2020-21
UT Tyler Liaison with TxDOT for Research	Texas Department of Transportation	Member	2010-17
Generation Texas (GenTX) Advisory Committee	Texas Higher Education Coordinating Board	Member	2014-Present
<b><i>University Level</i></b>			
President's Innovation Task Force	University of Texas at Tyler	Chair	2020
Distance Education Committee	University of Texas at Tyler	Ex-Officio Online Subcommittee	2017
Defense Advisory Group	University of Texas System	Member	2014-17
Research Compliance Committee	University of Texas System	Member	2013-17
Discovery Leadership (System VPR's)	University of Texas System	Member	2012-17
Horizon Fund Steering Committee	University of Texas System	Member	2013-14
Collaborative for Research on Pharmaceutical Engineering and Sciences (CROPES) Cluster Hire Search Committee	University of Texas at Tyler	Chair	2016-17

PACE Committee (Dual Credit)	University of Texas at Tyler	Member	2014-17
Innovation Academy Research Committee	University of Texas at Tyler	Chair	2012-Present
Intellectual Property Committee	University of Texas at Tyler	Member	2010-17
Council of Academic Deans (CAD)	University of Texas at Tyler	Member	2013-15
President's Cabinet (VP's)	University of Texas at Tyler	Member	2013-17
President's Council (VP's and CAD)	University of Texas at Tyler	Member	2013-17
Campus Success Committee	University of Texas at Tyler	Member	2013
Information Technology Committee	University of Texas at Tyler	Chair Chair Member	2008-09 2009-11 2006-08
University Research Committee	University of Texas at Tyler	Member	2011-2017
College of Education and Psychology Tenure and Promotion Committee	University of Texas at Tyler	Member	2017-19
College of Education and Psychology Ed.D. Development Committee	University of Texas at Tyler	Member	2017-Present
Endowment Compliance Committee	University of Texas at Tyler	Member	2006-2017
<b><i>Outside Committees</i></b>			
Co-Directors Working Groups	UTeach STEM Educators Association	Member	2019-Present
Texas Data Workgroup Stakeholders	Austin, TX	Member	2020-Present
Chapel Hill ISD CTE Advisory	Tyler, TX	Member	2017-2020
Innovation Pipeline Committee	City of Tyler	Member	2015-Present
STEM Academy Advisory Board	John Tyler High School, Tyler, TX	Member	2014-Present
PLTW Partnership Board	Robert E. Lee High School, Tyler, TX	Member	2014-Present
Tyler Area Business Education Council	Smith County	Member	2013-Present

### **Proposal/Journal Review**

Reviewer Association of Science Teacher Education Program Proposals for 2020 Conference, 2019.

Reviewer American Educational Research Association (AERA) Session Proposals 2020.

Reviewer of Manuscripts for the Journal of Education in Science, Environment and Health, 2019-Present.

Reviewer of Manuscripts for Sage Open, 2019-Present.

Reviewer of Manuscripts for Science Education International (ICASE), 2012-Present.

External Reviewer on Tenure/Promotion Portfolios. Multiple Universities. 2010-Present.

Proposal Reviewer. I have served on a number of NSF, NASA, TEA, and THECB panels. 1995-Present.

Co-Editor, Journal of Interactive Online Learning, (ISSN 1541-4914), 2002-2019.

### **Professional and Scholarly Organizations**

<b>Current Organizations</b>	<b>Purpose</b>	<b>Leadership Positions Held (past or present)</b>	<b>Years</b>
American Evaluation Association (AEA)	Professional		2016-Present
International Association of Amusement Parks and Attractions (IAAPA)	DSP		2013-2018
Museum Store Association (MSA)	DSP		2013-2018
Association of Science and Technology Centers (ASTC)	DSP		2013-Present
American Geophysical Union (AGU)	Professional		2003-Present
Association of Science Teacher Educators (ASTE)	Professional	SW Region President Technology Committee Publications Committee	1992-Present
Computer Science Teachers Association (CSTA)	Professional		2015-2019
International Technology and Engineering Educators Association (ITEEA)	Professional		2012-2016
National Science Teachers Association (NSTA)	Professional	Earth-Space Committee Preservice Committee Ad hoc Committees	1989-Present
National Association of Research in Science Teaching (NARST)	Professional		2010-Present
Phi Delta Kappa (PDK)	Professional		1994-Present
Indiana University Alumni Association (Life)	Professional		1993-Present
University of Texas at Dallas Alumni Association	Professional		1989-Present

**PERSONAL PROFESSIONAL DEVELOPMENT:**

I am a firm believer in professional development. Ongoing professional learning is important to stay current and be exposed to new ideas.

<b>Recent Professional Development</b>	<b>Location</b>	<b>Year(s)</b>
<b><i>Leadership/Administration</i></b>		
EDX Course Improvement Science	Online	2019-20
Education for Sustainable Development	Online	2019-20
AASCU Webinar: Competencies for State Colleges and University Presidents	Online	2016
American Academic Leadership Institute (AALI): Executive Leadership Academy	Washington, DC	2016-17
School Board Training: Various required topics.	Online Tyler, TX	2018-19 2012-18

Linked-In Profile: <https://www.linkedin.com/in/michael-odell-ab571a11>



**APPENDIX 1:****Courses Taught:**

<i><b>Institution</b></i>	<i><b>Level</b></i>	<i><b>Number</b></i>	<i><b>Course Title</b></i>
<b>UT Tyler</b>			
	<b>GRAD</b>	EDUC 5308	Current Issues in Education
		EDUC 5386	History of STEM Education
		EDUC 5370	Historical and Philosophical Foundations
		EDUC 5389	Interdisciplinary Teaching Methods
		EDUC 5115	Practicum in Teaching
		EDUC 5302	Research in Curriculum and Instruction
		EDUC 5100	Workshop/Seminar
		EDRM 6351	Design-based Implementation Research 1
		EDSI 6312	Improvement Science in Educational Setting
		EDSI 6160	Dissertation
	<b>UGRAD</b>	EDUT 4170	Apprentice Teaching Seminar
		EDUT 1170	STEP 1: UTeach
		EDUT 2170	STEP 2: UTeach
		ELED 4214	Teaching Science in the Elementary School
		EDUC 4314	Teaching Science in the Middle and Secondary School
		GEOL 3310	Physical Geology and Astronomy
		GEOL 3314	Meteorology and Oceanography
		EDUT 4370	Project-Based Instruction
		EDUT 3371	Classroom Interactions
		EDUC 4199	Independent Study in STEM Education
<b>Illinois State University</b>			
	<b>GRAD</b>	C&I 411	Curriculum
<b>University of Idaho</b>			
	<b>GRAD</b>	EDTE 518	Capstone: Application of Educational Theory
		EDTE 508	Standards-based Curriculum in Science (hybrid)
		EDTE 513	History of Educational Thought (online)
		EDTE 524	Models of Teaching
		EDTE 511	Planning and Administering the Curriculum
		EDTE 516	College Teaching (online)
		EDTE 501	Seminar: Multiple Topics
		EDTE 503	Workshop: Multiple Topics
		EDTE 502	Directed Study: Multiple Topics
		ENVS 500	Master's Thesis Research
		EDTE 599	Research: Multiple Topics
		EDTE 500	Master's Thesis Research
		EDTE 600	Doctoral Dissertation Research
		EDTE 505	Professional Development: Multiple Topics
	<b>UGRAD</b>	EDTE 328	Educational Technology
		INTER 103	Integrated Science for Elementary Ed. Majors
		EDTE 329	Elementary/Middle School Science Education (K-8)
		EDTE 429	Implementing Elementary/Middle School Science (K-8)

		ENVS 497	Senior Research Project Environmental Science
		EDTE 101	Introduction to the Education Profession
		EDTE 477	Secondary School Science Methods
		EDTE 444	Elementary Science Methods
		EDTE 421	Elementary Social Studies Methods
		EDTE 444/421	Integrated Science/Technology/Social Studies
		EDTE 314	Strategies for Teaching
		EDTE 403	Workshop: Multiple Topics

**APPENDIX 2: Student Advising and Supervision**

<b><i>Institution</i></b>	<b><i>Level</i></b>	<b><i>Degree</i></b>	<b><i>Committee Role</i></b>	<b><i>Number</i></b>
<b><i>University of Texas at Tyler</i></b>	GRAD	Master of Education	Chair	42
	GRAD	Master of Education	Member	24
	GRAD	Doctor of Education	Chair/CO-Chair	23
<b><i>University of Idaho</i></b>	GRAD	Doctor of Philosophy	Major Professor	7
	GRAD	Doctor of Philosophy	Member	14
	GRAD	Master of Education	Chair	68
	GRAD	Master of Science in Education	Chair	2
	GRAD	Master of Science in Education	Member	5
	GRAD	Master of Science In ENVS	Chair	1
	GRAD	Master of Science (Multiple)	Member	5
	GRAD	Master of Arts in Teaching	Member	11
<b>George Mason University</b>	GRAD	Master of Business Administration	Outside Member	1
<b>Texas Tech University</b>	GRAD	Ph.D. Curriculum and Instruction	Outside Member	1

### **Appendix 3: National and International Programs of Significance**

***NASA Opportunities for Visionary Academics (NOVA)*** was created to develop and disseminate a national framework for enhancing science, mathematics and technology literacy for preservice teachers in the 21st century. The lead institutions of the NOVA consortium, consisting of the: University of Alabama, University of Texas – Tyler, Fayetteville State University, California State Polytechnic University, and Miami University (OH) and a network of 101 member institutions collaborated to produce enhanced scientific literacy for preservice teachers. This decade long effort (1995-2006) was accomplished through the demonstration of an undergraduate science and mathematics course framework, examples of successful course models, and a mentoring support system for faculty wishing to implement new courses or modify existing courses at their universities. The framework uses interactive learning and integrates science, mathematics and technology as a means of developing a new paradigm for educating preservice teachers. NASA's financial support of NOVA ended on September 30, 2006. <http://www.novaprogram.org/>

***NASA Opportunities for Visionary Academics Phase III Workshops.*** 2000-2005. (Kennedy Space Center, Florida, 2003; Ames Research Center, California, 2002; Langley Research Center Virginia, 2002; Jet Propulsion Laboratory, California, 2001; 2005; Johnson Space Center, Texas 2001; Marshall Space Flight Center, Alabama, 2000, Goddard Space Flight Center, Maryland, 1999, 2005).

***NASA's Opportunities for Visionary Academics Phase I Workshops*** (NOVA), 1996-2002 (Pasadena, California, 1996; Langley, Virginia, 1997; Moscow, Idaho, 1997; Cleveland, Ohio, 1997; Las Vegas, New Mexico, 1997; Orlando, Florida, 1998; Houston, Texas, 1998; Durham, New Hampshire, 1998, Bellingham, Washington, 1999; Bowling Green, Kentucky, 1999, San Jose, California, 1999; Huntsville, Alabama, 2000; Dryden, California, 2001; Stennis, Mississippi, 2001; Kennedy Space Center; Ames Research Center, 2002).

***The Global Learning and Observations to Benefit the Environment (GLOBE) Program*** is an international science education program that provides students and the public worldwide with the opportunity to participate in data collection and the scientific process, and contribute meaningfully to our understanding of the Earth system and global environment. Announced by the U.S. Government on Earth Day in 1994, GLOBE launched its worldwide implementation in 1995. GLOBE provides grade level-appropriate, interdisciplinary activities and investigations about the atmosphere, biosphere, hydrosphere, and soil/pedosphere, developed by the scientific community and validated by teachers. GLOBE connects students, teachers, scientists, and citizens from different parts of the world to conduct real, hands-on science about their local environment and put in a global perspective. GLOBE is jointly sponsored by U.S. National Aeronautics and Space Administration (NASA) and the National Science Foundation (NSF), with support from the National Oceanic and Atmospheric Administration (NOAA) and Department of State. Internationally, GLOBE is implemented through Government-to-Government agreements with each Country Partner responsible for in-country activities.

***Global Learning and Observations to Benefit the Environment (GLOBE) Workshops*** 1996-2004; Dallas, Texas, 1996; Ogden, Utah, 1996; Madrid, Spain, 1998-99; Bloomington, IN, 1998; Nova Scotia, Canada, 1999; Moscow, Idaho 1999, Mexico City, Mexico 1999; Moscow, Idaho, 2000-04; St. Charles, Missouri, 2000; Boise, Idaho, 2000; Grangeville, Idaho, 2000; Santa Barbara, California, 2000; Orlando, Florida, 2000;; Coppell, Texas, 2015; San Antonio, Texas, 2014. Georgetown, Texas 2019; Austin Texas, 2019; Tyler, Texas, 2006-Present.

#### **Appendix 4: International Endeavors**

I have engaged in a number of International Endeavors over the course of my career. In 2016, the UT System established a collaboration with Mexico. The initiative named ConTex was designed to create collaborations with UT System Institutions and Higher Education Institutions in Mexico supported by Mexico's National Council of Science and Technology (CONACYT). I coordinated UT Tyler activities for this initiative. Working in collaboration with the UT Tyler Office of International Programs UT Tyler established two agreements with Mexican Institutions.

As described earlier in the document, I have been engaged in a number of research and training activities internationally. I am still an active participant in the NASA, NOAA, NSF, and US Department of State sponsored GLOBE Program. I have also represented the university and NASA at international events.

#### **International Travel**

- Argentina
- Aruba
- Australia\*
- Bahamas
- Belgium
- British Virgin Islands
- Canada\*
- Canary Islands
- Czech Republic
- China
- Costa Rica
- Croatia
- Denmark
- Dominican Republic
- Estonia
- France
- Germany
- Grand Cayman
- Greece
- Hungary
- India
- Ireland
- Italy
- Jamaica
- Japan
- Latvia
- Lichtenstein
- Luxembourg
- Macedonia
- Malaysia
- Malta
- México\*
- Monaco
- Morocco
- New Zealand
- Norway
- Portugal
- Russia
- Scotland
- Singapore
- South Africa
- Spain\*
- Sweden
- Switzerland\*
- Thailand
- Trinidad & Tobago
- United Kingdom
- Uruguay
- Vatican City
- Wales

**\*Note: Indicates International Education Project**

#### **U.S. and U.S. Territories: (2)**

I have traveled to all 50 U.S. states and the District of Columbia. Puerto Rico and the U.S. Virgin Islands.

### **Appendix 5: Consulting**

I have served as a consultant or project evaluator to school districts, industry, professional organizations and universities. Consulting projects are typically in the areas of online learning, STEM education, curriculum alignment, or program/project evaluation. I have consulted on projects in Idaho, Alabama, Washington, D.C., Indiana, Virginia, Georgia, South Carolina, and Texas. I am also a reviewer for several commercial publishing companies and have been acknowledged in a number of industry leading education textbooks.

I have conducted dozens of evaluations since I was a faculty member at the University of Idaho. I develop mixed methods designs. I have command of SPSS and SAS. I am competent in traditional statistics, HLM, and Rasch. I have utilized V-NOTE and other video software for qualitative classroom research. I have studied both quantitative and qualitative research and evaluation methodologies when I was at Indiana University as a doctoral student. I am a member of the American Evaluation Association.

I have served as Evaluator on the following projects since 2010:

1. Evaluation of New Tech TEAMS expansion model. 2018-20. Furman University.
2. Evaluation of New Tech TEAMS Model: Collaboration with the Riley Institute at Furman University to evaluate a modified training model to implement New Tech in new schools. Funding comes from the Carnegie Foundation. 2016-17.
3. Evaluation of US Department of Education I3 Grant Program in South Carolina (2012-2016). Contract with Knowledge Works.
4. Evaluation of NSF Projects:
  - a. Noyce University of Alabama. 2014-2017.
  - b. Noyce University of West Georgia 2014-2018; 2020-24. (Current No-Cost Extension).
  - c. NSF ADVANCE University of West Georgia. 2013-2016.
  - d. University of Texas at Austin TXESS Earth Systems Science Revolution. (2008-2011)
5. State of Virginia (Multiple Teacher Training Grants) Hampton University (2010-16)

#### **Current Contracts:**

- University of Alabama
- Furman University
- University of Texas at Arlington
- University of West Georgia

#### **Past Contracts**

- University of Idaho
- Grangeville School District
- NASA
- Hampton University
- Texas A&M Commerce
- Austin Peay State University
- Knowledge Works
- Communities Foundation of Texas
- National Science Teachers Association
- Grangeville School District, Idaho

## Appendix 6: Conferences

### Conferences Chaired/Co-Chaired

GLOBE Student Research Symposium Southwest Regional, Austin TX, 2021	Planning Stage
Texas STEM Conference, Virtual. 2021	Planning Stage
Texas STEM Coalition Conference, Austin, TX, 2020	Attendees 700
Texas STEM Coalition Conference, San Antonio, TX 2019	Attendees 966
UTeach National Conference, Austin, TX 2018	Attendees 900
Texas STEM Coalition Conference, Galveston, TX 2018	Attendees 967
Texas PLTW Conference, Dallas, TX 2018	Attendees 811
Texas PLTW Conference, Austin, TX, 2017	Attendees 790
Texas STEM Coalition Conference, Addison, TX 2017	Attendees 1100
SWASTE Conference, Tyler, TX 2016	Attendees 32
Texas PLTW Conference, Houston, TX, 2016	Attendees 707
Texas STEM Coalition Conference, San Antonio, TX 2016	Attendees 658
GLOBE Student Research Symposium Southwest Regional, Houston TX, 2016	Attendees 40
Texas PLTW Conference, Corpus Christi, TX 2015	Attendees 600
Texas PLTW Conference, Rockwall, TX 2014	Attendees 600
Texas STEM Conference, Dallas, TX 2014	Attendees 780
Texas PLTW Conference, Houston, TX	Attendees 580
National Alliance of State Science and Mathematics Coalitions 2012, Washington, D.C.	Attendees 80
Texas Project Lead the Way 2012, Austin, TX	Attendees 504
National Alliance of State Science and Mathematics Coalitions 2011, Washington, D.C.	Attendees 75
STEM 2011 Conference, Austin TX	Attendees 354
Texas Project Lead the Way 2011, Dallas, TX	Attendees 427
Texas Project Lead the Way 2010, Houston, TX	Attendees 350
11 <sup>th</sup> Annual GLOBE Conference, San Antonio, TX	Attendees 300
Idaho Science Teachers Conference 2003, Lewiston, ID	Attendees 600

## **Appendix 7: Service (Complete List)**

### **Major Committee Assignments:**

#### **Board of Directors**

Discovery Science Place (Ex-officio) 2012-2018

#### **School Board**

UT Tyler Innovation Academy, 2012-Present.

#### **International**

GLOBE International Conference Planning Committee, Co-Chair 2007-08, 2010

GLOBE International Advisory Committee: North American Representative, 2006-08.

Vice Chair, GIAC, 2006-08.

#### **National**

National Science Teachers Association, Preservice Teacher Committee, 2016-18.

Ad Hoc Committee; Student Chapters 2019-Present

UTeach STEM Educators Association (USEA), 2016-19.

Past President: Chair: Awards Committee

President: Conference Chair

Vice President; Chair Leadership Development Council.

National Alliance of State Science and Math Coalitions, 2010-2016.

Board Member (2010-12), President (2013-15)

SHELLS Advisory Committee, 2007-08.

ASTE Technology Committee, 2006-2008.

NSTA Aerospace Committee, 2004-2007. Renamed Earth Space Science Committee 2005.

George Fox University Science Center Advisory Board, 2000-2001

Advisor, Tri-State Coalition Initiative Evaluation (Mississippi, Alabama, Tennessee),

Mississippi State University, 1997-98

Western Regional Space Grant Conference Planning Committee, Chair, 1996-97

NASA EPSCoR Revision and Review Panel, 1996

National Space Grant Annual Conference Planning Committee, 1995-96

NASA Conference and Exhibits for NSTA and NCTM National Conference, 1995

Advisory Board for National Eisenhower Grant: The Electronic Model Congress Project,

Columbia Education Center, Portland, Oregon, 1995-9 Coordinator, SMCNWS

Regional Eisenhower Fall conference, 1999

#### **State**

Texas STEM Coalition, 2016-Present

Secretary 2016-18.

Texas Regional Collaborative Advisory Committee, 2014-Present

Generation Texas (GenTX) Advisory Committee, 2014-Present

Texas STEM Center Coalition, 2007-Present

Board Chair, (2010-11)

Real World Design Challenge Competition, Texas Committee, 2013-Present

Advisory Board, NE Texas Consortium Online Math Project 2008-09

Earth Space Science TEKS Committee, 2008

Texas College Readiness Standards Science Vertical Team, 2007.

Idaho Science Standards-Rubrics Review, 2004.



Idaho Science Skills Based Curriculum Guide, 1996.  
Idaho Exit Standards Science Subcommittee, 1999-01.  
Idaho Most Committee on Science Teacher Preparation, (Chair-Science), 1999  
Third International Mathematics Science Study (TIMSS) Idaho Planning Committee, 1998  
Science Mathematics Consortium Northwest Schools, Idaho Action Committee, 1997-00  
Idaho Association of Teacher Education revision of Idaho Standards Programs, 1997.  
Idaho Science Framework Committee, 1994  
National Standards Review Committee, Idaho Focus Group, 1994-95  
Board Member, Palouse Discovery Science Center, 1999-2001.  
Hemingway Learning Institute, Board of Directors, 1999-present.  
Science Education Advisory Committee, Chair, 1997-98  
Moscow Hands-on Science Museum Development Committee, 1997-98

## **University**

### ***University of Texas System***

Defense Advisory Group (2014-2017)  
Research Compliance (2013-2017)  
Discovery Leadership (2012-2017)  
UT Horizon Fund Steering Committee (2013-2014)

### ***University of Texas at Tyler***

CROPES Search Committee (2016)  
PACE Committee (Dual Credit), 2014-Present  
Innovation Academy Research Committee (Chair), 2012-Present  
Intellectual Property Committee, 2010-Present  
Council of Academic Deans (2013-Present)  
President's Cabinet (2013-Present)  
President's Council (2013- Present)  
Compliance Working Group, 2010-Present  
Campus Success Committee, 2013  
Information Technology Committee, 2006-09  
Chair 2008-09, 09-11  
Provost Search Committee, 2007-08  
Research Librarian Search Committee 2008-09  
Endowment Compliance Committee 2008-Present

### ***University of Idaho***

Teacher Education Coordinating Committee, 2004-2005.  
Work Group on Campus Computing, 2003-04  
Safety and Loss Control Committee, 2001-04  
International Affairs Committee, 1998-01

## **College**

### ***University of Texas at Tyler***

*Tenure and Promotion Committee: Chair, 2018-Present*  
College of Education Leadership Council 2010-17  
Curriculum and Assessment Committee, 2006-08  
Distance Learning Committee, 2006-07  
University Academy Leadership Committee, 2011-Present.

### ***Illinois State University***

Teacher Education Review Board, 2005-present

Academic Council, 2005-present

*University of Idaho*

*Standing Committees*

College Coordinating Committee, 2003-2005.

College Advisory Committee, 2001-03

Technology Committee, 1994-2000

*Ad Hoc*

Distributed Learning and Outreach Committee, (chair) 2002-2005.

Budget Committee, 2000-2005.

Reorganization Committee, 2002

Teacher Education Entrance Requirements Committee, (chair) 2001

Conceptual Framework Committee, 2000-01

Field Experience Committee, 1994-95

Search Committees: CERPS Director, 1997; Teacher Education, C'dA, 1999; Research Position, 1999, (chair), Mathematics Education, 2001, 2003.

Advisor on Science Curricula for U.S. West Grant: Interplanetary Multi-Media Communication Project, UI, College of Education, Moscow, Idaho, 1995-96

**Departmental**

*UT-Tyler*

Post-Tenure Review Committee, 2019-21

Tenure and Promotion Committee, 2014-Present

Chair, 2018-Present

Post-Bach Certification Committee, 2009-11

Undergraduate Program Committee, 2009-11

Curriculum and Instruction Search Committee, 2018-Present; Chair, 2020.

*University of Idaho*

Environmental Science Steering Committee, 1998-2005

Off-Campus Degree Programs, 1996-98

Graduate Studies Committee, 1995-97, 2002.

Technology Committee, 1994-95

Field Experience Committee, 1994-95

Tenure and Promotion Committee, 1994-95, 2002-03

Graduate Student Assignment Committee, 1995-96

Search Committee for EDTE 314 Instructor, 1995

Task Force: Reorganization of the Elementary Education Program, 1993-94

Idaho Science Textbook Adoption Review, 1995, 2000.

Mentor for Faculty applying for NSF Career Awards Program, 1998

Integrated Science for Elementary Preservice Teacher (ISEPT) Committee, 1994

Science Education Institute/Residential Academy Committee, 1993-94

Palouse Connections Committee (UI and WSU), 1994

Advisory Board for Science and Mathematics Consortium for Northwest Schools, Idaho 1995-96

**School District**

Tyler ISD Career and Technology Advisory Committee, Tyler, Texas, 2016.

John Tyler High School STEM Advisory Board, Tyler, Texas, 2014-Present

Robert E. Lee High School, Tyler, TX, PLTW Partnership Board, 2015-Present

Tyler ISD Professional Development Planning Committee, 2013-14  
P-16 Teacher Recruitment and Retention Committee, Tyler ISD (Chair) 2008-11  
Representative to Region I and II Superintendent Meetings. Idaho. 2003-05.

Science textbooks adoption committee, Irving, Texas.  
Earth Science, 1985;  
Environmental Science, 1990

#### **Community**

Innovation Pipeline Committee, City of Tyler, 2015  
Tyler Area Business Education Council, 2013-Present

#### **Proposal/Journal Review**

- Reviewer, International Journal of STEM Education 2020.
- Info Age, Preparing STEM Teachers Volume, (2 Chapters), 2019.
- Sage Open Manuscript Editor, 2018
- Proposal review Texas Higher Education Coordinating Board, 2015.
- Reviewer of Manuscripts Science Education International, 2012-present.
- NSF Proposal Reviews. I have served on a number of NSF review panels. 2003-present.
- Co-Editor, Journal of Interactive Online Learning, (ISSN 1541-4914), 2002-2019.
- Reviewer of Manuscripts for the Journal of the Idaho Academy of Science, 2002
- Reviewer of Manuscripts for the Journal of the Geoscience Education, 2002
- Co-Editor, NCOLR Conference Proceedings, 2002.
- Idaho Space Grant Research and Special Project Proposals, 2000-05.
- Science Mathematics Consortium for Northwest Schools (SMCNWS), Idaho State Professional Development Proposals, 1997, 1998
- Phi Delta Kappa (PDK) Research grant proposals, 1994, 1997-present
- NASA Mission to Planet Earth (MTPE) preservice proposals (panel member), 1997
- NASA Office of Space Science (OSS) Student Launch Proposals, 1997
- NASA Opportunities for Visionary Academics (NOVA) Implementation Proposals (Panel Member), 1996-05.
- NASA National Space Grant Unsolicited Proposals (panel member), 1996
- NASA Academy Proposals, Goddard Space Flight Center (panel member), 1996
- NASA MTPE Unsolicited Education Proposals (panel member), 1996-97
- Texas Academy of Science, Science Educator of Year selection (panel member), 1996

## **Appendix 8: Professional and Scholarly Organizations**

### **Current**

American Geophysical Union (AGU), 2003-present  
American Evaluation Association (AEA) 2015-Present  
American Educational Research Association (AERA), 1993-2010; 2015-Present  
Association Science Teacher Educators (ASTE), 1992-present  
    Technology Committee 2005-07; Publications Committee, 1996-1999  
National Association for Research in Science Teaching (NARST), 1993-Present  
National Science Teachers Association (NSTA), 1989-present  
Science Teachers Association of Texas, 1984-90; 2010-Present  
Texas STEM Coalition, 2009-Present  
Phi Delta Kappa (PDK), 1993-present  
    UI Chapter President, 1997-98; UI Research Representative, 1994; UI Chapter Treasurer,  
    1993, 1999, 2001, 2002, 2003-05  
Indiana University Alumni Association, 1996-present  
STEM Teacher Leadership Network, 2019-Present.  
University of Texas at Dallas Alumni Association, 1989-present

### **Past**

Association for Supervision and Curriculum Development (ASCD), 1994-97  
Computer Science Teachers Association 2015-2017  
Idaho Academy of Science (IAS), 1994-2005  
Idaho Science Teachers Association (ISTA), 1993-2005  
    Past President 2003-04; President, 2002-03; President Elect, 2001-02  
Idaho Earth Science Teachers Association (IESTA), 1993-2005  
    Board Member/Newsletter Editor, 1994-95  
Idaho Science, Mathematics, Technology Coalition (ISMTC) 2003-2005  
    Board Member 2003-04  
International Society for Technology in Education, 2017.  
International Technology and Engineering Educators Association 2012-2017.  
National Earth Science Teachers Association, 1988-90, 1995-present  
Northern Rocky Mountain Educational Research Association (NRMERA), 1994-2004  
Pi Lambda Theta (Education Service Organization), 1991-2015  
School Science and Mathematics (SSM), 1993-2006  
American Association for Teachers of Spanish and Portuguese (AATSP), 1998  
American Institute of Mining, Metallurgical, and Petroleum Engineers (SME), 1989-94  
Association for Texas Professional Educators, 1984-90  
Dallas Paleontological Association, 1988-90  
Gamma Sigma Epsilon (Geology Service Organization), 1990-91  
Geological Society of America (GSA), 1992-94  
Hoosier Association of Science Teachers (HASTI), 1990-93  
Idaho Association for Supervision and Curriculum Development (IASCD), 1997  
Indiana University School of Education Professional Organization, 1990-91  
Midwest Educational Research Association (MWERA), 1993-94  
Northwest Association of Teacher Educators (NWATE), 1994-96  
Parent Teacher Association, SHJH, Irving, Texas, 1984-90  
    Vice President, 1987-89  
Rasch Measurement Special Interest Group, 1992-94  
Society of College Science Teachers, 1988-89  
Texas Earth Science Teachers Association, 1988-90, 2007-2018

### **Appendix 9: Other Service**

- NASA Preservice Teacher Conference 2008, Judge Preservice Teacher Poster Competition, Washington, D.C.
- Lead-Author, NSTA Position Statement on Aerospace Education, 2008,  
<http://www.nsta.org/about/positions/aerospace.aspx>

#### *Program Review:*

UT Tyler University Academics Teacher Portfolio Review, 2012-Present.

National Space Grant (NASA) Ten-year evaluation of effectiveness of fellowship programs in 21 states, 1999.

National Space Grant (NASA) Fifteen year evaluation of effectiveness of fellowship programs in 4 states, 2004

NASA Opportunities for Visionary Academics program.

Northern Michigan University, 2005.

Whitworth College, Spokane, Washington 2002

University of Alabama NOVA Project, Tuscaloosa, Alabama, 1998;

Fort Hays State, University, Fort Hays, Kansas; 1999, 2001

Baylor University NOVA Project, Waco, Texas, 1999.

Indiana University, Bloomington, Indiana, 2000.

Texarkana College, Texarkana, Texas, 2001

Rocky Mountain Space Grant Consortium, University of Utah, Brigham Young University, Utah State University, 1997

Lewis and Clark Rediscovery Project

Kamiah School District, Idaho, 2002, 2004

Golden Triangle Consortium Schools, Montana, 2001

Kennewick School District, Washington, 2001, 2002, 2004

### **Community Service**

Real World Design Challenge Judge, Washington, D.C., 2012-2013.

Science Fair Judge, Academic Rodeo, East Texas State Fair, 2006.

Science Olympiad Event Panel Judge, University of Alabama, 2006.

University of Idaho/Lewis Clark State College Space Day, Lewiston, Idaho 2001.

Science Fair Judge, Palouse Hills School, 2000.

Odyssey of the Mind Coach, 1998

Development of an outdoor environmental classroom at McDonald School, Moscow, Idaho, 1997-98

GLOBE Implementation at Palouse Hills Adventist School, 1999-present.

National Space Grant/Idaho Space Grant representative to the National Academy of Sciences Presidential Teaching Awards Program, Washington, DC, 1996

NASA Education Program Exhibitor, National Science Teachers Association (NSTA) Convention, St. Louis, Missouri, 1996; New Orleans, Louisiana, 1997; Las Vegas, Nevada, 1998.

NASA Education Program Exhibitor, NCTM Convention, San Diego, California, 1996; Minneapolis, Minnesota, 1997

Family Science Nights: Various Region I and II schools, 1995-present.

Reviewer, PDK Grant Program, 1994

Committee Member for Brownie Science Day, Women in Science, Indiana University, 1993

Columbus North High School Science Olympiad (Regional), Columbus, Indiana, 1993  
National Chemistry Day Volunteer, Elementary Science Activity Room, 1992  
Science Olympiad Volunteer, Bloomington, Indiana, 1990-92  
Science Fair Judge MCCSC Elementary Schools, Bloomington, Indiana, 1992-93  
Science Resource Volunteer for Local Schools, Bloomington, Indiana, 1991-93  
Sam Houston Junior High Wildlife Society Sponsor, Irving, Texas, 1992-93  
Representative, SHJH Campus Advisory Committee, 1988-89  
Sam Houston Junior High Science Club Sponsor and Founder, Irving, Texas, 1984-90  
Sam Houston Junior High Young Astronaut Sponsor and Founder, Irving, Texas, 1984-90  
MESH Competition Sponsor, Irving, Texas, 1985-90  
Coach, SHJH Girls Soccer Club, Irving, Texas, 1986-88  
Coach, Academic Pentathlon, Irving, Texas, 1988  
Sponsor and Coordinator, Student Travel, Washington, DC, Florida, Texas, Wyoming,  
Arkansas, and Europe. Irving, Texas, 1985-90

## **Appendix 10: Personal Professional Development**

- EDX Case Studies in Continuous Educational Improvement, Online 2021
- EDX Designing and Leading Learning Systems, Online 2021
- UT Tyler Education Law Conference, Tyler, Texas, 2020.
- Google Classroom Training, Valencia, Spain, 2020.
- APSI Coordinator Training, New York, New York, 2019.
- EDX Improvement Science in Education, Online, 2019-20.
- Education for Sustainable Development Course, Online, 2019-20.
- School Board Training, Texas Association of Charter Schools, 2014, 2015, 2016, 2017, 2018, 2019, 2020.
- Texas Open Meetings Act. Online State of Texas. 2012.
- Integrating GLOBE Earth Science Education Projects and the Digital Library for Earth Systems Education
- Resources into Professional Development, Boulder, Colorado, 2008.
- EDC K-12 Science Curriculum Dissemination Hub Leader Meeting, St. Louis, Missouri, 2001.
- University Studies Abroad Consortium, Universidad del Pais Vasco, Spanish I, San Sebastian, Spain 1999.
- National Teacher Training Institute, Idaho Public Television, Moscow, Idaho, 1999.
- Albertson Sponsored Evaluation/Self-Assessment Workshop, Boise, Idaho, 1999.
- Eisenhower National Clearinghouse Networking Resources Workshop, Seattle, Washington, 1998.
- Using the Third International Mathematics and Science Study (TIMSS) to improve science education in Idaho, State Department of Education, Boise, Idaho, 1998.
- GLOBE Facilitators Workshop, Santa Barbara, California, 1998.
- Conceptual Physics Understanding Facilitators Workshop, San Diego State University, San Diego, California, 1996.
- GLOBE Franchise Facilitators Training, Biosphere II, Phoenix, Arizona, 1996; Missoula, Montana, 1998.
- Using the National Science Education Standards in Evaluation Workshop, National Research Council, National Academy of Sciences, Washington, DC, 1996.
- Project 2061 Benchmarks/Standards Workshop, Wheeling, West Virginia, 1996.
- Challenger Center Workshop, Wheeling, West Virginia, 1996.
- The Kinesthetic Connection for Space Science Educators Workshop, NASA/NSTA, Arlington, Virginia, 1996.
- NASA Lunar Sample Certification Workshop, Moscow, Idaho, 1993.
- National Science Education Standards Project. Regional speaker's workshops, NRC, Washington, DC, 1995.
- America's Next Era in Space Seminar: "Probing the Primordial Constituents of Our Solar System," Dr. Anita Cochran, Dr. Tobias Owen, and Dr. Eugene Shoemaker, NASA, Washington, DC, 1995.
- Science Education Partnership Workshop, Moscow, Idaho, 1995.
- HTML Programming Workshop, Moscow, Idaho, 1995.
- GLOBE Workshop, West Chester, Pennsylvania, 1995.
- Onward to Excellence Workshop, NWREL, Portland, Oregon, 1994.
- Educational Reform with Education America, Department of Education Regional, Moscow, Idaho, 1994.

## **Scholarship:**

- Texas High School Project Data Workshop, Tyler, Texas, 2009.
- Responsive Research Series (CREATE), The Woodlands, Texas, 2007.
- Introduction to NSF programs and funding opportunities. University of Utah, Salt Lake, Utah, 2002,

Illinois State University, 2005.

- Eisenhower National Clearinghouse, Connecting to the Future: A Dialogue, Alexandria, Virginia, 1997.
- NASA KIDSAT/YES Program Review, Washington, DC, 1996.

**Outreach:**

- Office of Space Science Workshop, Keys to Implementing NASA's OSS Educational Strategy Workshop, Charleston, South Carolina, 1996
- NASA Earth Systems Science Resources Facilitators Workshop, Goddard Space Flight Center, Greenbelt, Maryland, 1996.

**Administration/Management:**

- Educator Preparation Instructional Leadership Academy, Center for Research, Evaluation, and Advancement of Teacher Preparation, 2006-07.
- Illinois Commission on School Leader Preparation sponsored discussion with Dr. Art Levine concerning the report *Educating School Leaders*. Chicago, Illinois, 2005.
- Chairing the Academic Department, American Council on Education, San Antonio, Texas. 2004.
- Small Disadvantaged Businesses and Universities Forum, NASA Langley, Hampton, Virginia, 2002.
- EDC/NSF Science Leadership Institute, Marlboro, Massachusetts, 2002
- Windows 95 and Meeting Maker Workshop, NASA Headquarters, Washington, DC, 1997
- Developing Effective Work plans, NASA, Washington, DC, 1995



## **Appendix 11: CONFERENCES ATTENDED:**

### **International:**

- International Technology and Education Conference (InTED), Valencia, Spain, 2020
- New Perspectives in Science Education, Florence, Italy,(Virtual Attendee), 2020
- International GLOBE Conference  
Online, 2020; Detroit, Michigan, 2019; New Haven, Connecticut 2018; Boulder, Colorado, 2018; Estes Park, Colorado, 2016; San Antonio, Texas, 2007; Phuket, Thailand, 2006; Boulder, Colorado, 2004; Chicago, Illinois, 2002; Colorado Springs, 2001; Blaine, Washington, 2001; Annapolis, Maryland, 2000; Durham, New Hampshire, 1999; Airlie, Virginia, 1997.
- EduLearn, Majorca, Spain 2019.
- Learning for Change and Innovation World Congress, Adelaide, Australia, 2016.
- Association of Science and Technology Centers (ASTC); Charlotte, NC, 2015; Montreal, Canada 2016
- International Association of Amusement Parks and Attractions. Orlando, Florida, 2012, 2013, 2015
- GLOBE North America Regional Meeting, San Antonio, Texas, 2013
- National Science Teachers Association Regional Conference, Portland, Oregon, 2013
- Project Lead the Way Summit, Austin, TX. 2009, Washington DC, 2010. Indianapolis, 2012, 2015, 2016; Orlando, Florida, 2018. .
- Global Climate Change Research and Education Workshop, Geneva, Switzerland, 2009.
- International Council of Association for Science Education, St. Louis, Missouri 2007; Boston, Massachusetts, 2008; New Orleans, Louisiana, 2008; Tartu, Estonia, 2010.
- GLOBE Web Design and Data Summit, Boulder, Colorado, 2008.
- Hawaii International Education Conference, Honolulu, Hawaii. 2008, 2012, 2017.
- International Space Olympics, Korolev, Russia, 1997; 2002.
- International Technology and Engineering Education Association, Long Beach, California, 2012; Columbus, Ohio 2013.
- Second international Conference on Technology in Teaching and Learning in Higher Education, Samos Island, Greece, 2001.
- WebNet World Conference, Honolulu, Hawaii, 1999.
- World Association for Case research Applications, Caceres, Spain, 1999.
- First U.S.-Argentina Conference on Space, Science, and Technology for Society, Buenos Aires, Argentina, 1997.
- The NSTA Global Summit, San Francisco, California, 1996.
- International Conference on Technology Education (ICTE), New Orleans, Louisiana, 1996.

### **National:**

- American Council on Education, Washington, D.C., 2017.
- American Academic Leadership Institute, Washington D.C., 2016, 2017.
- International Society for Technology in Education. San Antonio, Texas, 2017.
- NSTA STEM Forum, Denver, Colorado, 2016.
- Museum Store Association (MSA), Atlanta, Georgia, 2016.
- 100Kin10 Unconference for New Partners, New York City, New York, 2016, New York, New York, 2017, Phoenix, Arizona, 2018
- American Council for Teachers of Foreign Language, ACTFL, San Diego, 2015
- US News STEM Conference, Washington, D.C. 2013; Dallas, 2014; San Diego, 2015.
- AASCU Government Relations Conference, Miami, Florida 2012, San Francisco, California, 2013; St. Petersburg, Florida, 2016;
- UT System Federal Relations Research and Policy Conference, Washington, DC, 2012, 2013, 2014, 2015, 2016

- AAPLU, National STEM Center Conference, St. Louis, MO, 2013
- New Tech New School Training. Grand Rapids, Michigan, 2013, Chicago, 2015.
- National Alliance of State Science and Mathematics Coalitions (NASSMC). Washington D.C. 2011-13.
- American Society Engineering Education, Austin, TX, 2009
- UTEACH Conference, Austin, Texas, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019. .
- Mathematics and Science Partnerships Program STEM Summit, Washington DC, 2007; San Francisco, California, 2009, Washington, DC 2010
- Shaping the Future: Launching New Endeavors to Inspire the Next Generation of Explorers, Washington, C. 2008.
- E-Learn Conference, Las Vegas Nevada, 2008.
- Society for Integrating Technology in Teacher Education (SITTE), San Antonio, 2007.
- Earth Systems Science Education Alliance Conference (ESSEA), Omaha Nebraska, 2007; Charleston, South Carolina, 2008; Biosphere II, Arizona, 2009.
- NOVA Assessment Summit, Tuscaloosa, Alabama, 2006.
- American Association of Colleges of Teacher Education, Chicago, Illinois, 2004; Washington, DC, 2005; San Diego, 2006.
- NSTA National Congress, Charleston, South Carolina, 2002.
- Consortium for Earth Science Education Conference, Greenbelt, Maryland, 2002.
- NOVA Leadership Development Conference, Goddard Space Flight Center, Maryland, 2002, 2005.
- National Conference for Online Learning, Tuscaloosa, Alabama, 2002.
- NSF/Phi Theta Kappa Conference, Preparing tomorrows teachers, the community college connection. New Orleans, Louisiana, 2002.
- NSTA Online Symposium, Washington, D.C., 2002.
- National Space Grant Aerospace Working Group Conference, White Sands, New Mexico, 2002.
- NOVA Faculty research Fellow Orientation Workshop, Manhattan, Kansas, 2001.
- NASA/University Cyber Conference, Washington, DC, 2000.
- American Association of College of Teacher Education, Chicago, Illinois, 2000.
- American Association for Teachers of Spanish and Portuguese, San Juan, Puerto Rico, 2000.
- NASA Triumvirate (ESE, ALERT, NOVA) Flagstaff, Arizona, 1999.
- NASA Earth Science Education Forum (invited), Austin, Texas, 1999.
- National Earth Science Teachers Conference, Las Vegas, Nevada, 1998.
- National Education Association Conference, Columbia, South Carolina, 1998.
- NASA Space Grant Capability Enhancement/EPSCoR Directors Conference, Washington, D.C, 1998.
- National Association School Science and Mathematics Coalitions Conference, Baltimore, Maryland, 1998.
- NOVA Leadership Forum, College Park, Maryland, 1997.
- NASA Educational Resource Center Conference, Hampton, Virginia, 1997; Pasadena, California, 2000; Cleveland, Ohio, 2001.
- Aerospace Education Specialist Conference, Houston, Texas, 1997.
- National Space Grant Directors Conference, Washington, DC, 1997.
- NASA University Affairs Officers Conference, Washington, DC, 1996.
- Council of State Science Supervisors Conference, Wheeling, West Virginia, 1996.
- EPSCoR National Conference, Washington, DC, 1996.
- GLOBE Educators' Conference, Warrenton, Virginia, 1996.
- NASA Teacher Resource Center Annual Conference, Huntsville, Alabama, 1996.
- National Space Grant/EPSCoR/JOVE Conference, Williamsburg, Virginia, 1996.
- NASA Industry Education Initiative Conference, Ft. Mead, Maryland, 1996.

- Holmes Partnership National Conference, Washington, DC, 1996.
- National Council of Teachers of Mathematics National Convention, San Diego, California, 1996.
- NASA JOVE Conference, Hampton, Virginia, 1996.
- Albert R. Einstein Fellowship NASA Orientation Conference, Washington, DC, 1996.
- Eisenhower National Clearinghouse Future Visions Conference, Washington, DC 1996.
- NASA Aerospace Education Specialist Program Planning Conference, Stillwater, Oklahoma, 1996.
- NASA NEW Planning Conference, Arlington, Virginia, 1996, 1997, 1998; Kennedy Space Center 1999; Johnson Space Center 2000.
- Association for the Education of Teachers of Science (AETS) National Convention, Kansas City, Missouri, 1993; Seattle, Washington, 1996; Cincinnati, Ohio, 1997. Later renamed to Association of Science Teacher Educators, Reno, Nevada, 2015; Des Moines, Iowa, 2016
- Second Annual Conference on Improving America's Schools, US Department of Education, Washington, DC, 1995.
- Applied Learning Conference (CORD), Waco, Texas, 1995.
- NSTA National Convention, Orlando, Florida, 2000; Boston, Massachusetts, 1999, 2008; Las Vegas, Nevada (exhibitor), 1998; New Orleans, Louisiana (exhibitor), 1997; Philadelphia, Pennsylvania, 1995; 2003; Anaheim, California, 1994, 2006; Kansas City, Missouri, 1993; Atlanta, Georgia, 1990, 2004; St. Louis, Missouri, 1996, 2001, 2007; Dallas, 2005; Denver 2007. Philadelphia, Pennsylvania 2012, San Antonio, Texas 2013, Boston, Massachusetts, 2014, Chicago, Illinois 2015. .
- NSTA Aerospace Committee, 2004-2007.
- Women in Science and Engineering Conference, Indiana University, Bloomington, Indiana, 1992.

**Regional:**

- Southwest Association of Science Teacher Educators, Denton, Texas, 2015.
  - President Elect 2015
- Science Teacher Education for Hispanic English Language Learners in the Southeast (SHELLS)
  - Conference, University of Alabama, Tuscaloosa, Alabama, 2008, 2009.
- South West Association of Science Teacher Educators, Wichita, Kansas, 2006, Irving, TX 2008, Irving, TX 2009
- Western States MSP PI Meeting, Reno, Nevada, 2005.
- Western Regional Space Grant Consortium Conference, Big Sky, Montana, 2002.
- GLOBE Partnership Symposium, Colorado Springs, Colorado, 2002.
- GLOBE Curriculum Development Symposium, Washington, D.C., 2002.
- GLOBE North American Meeting, Dallas, TX, 2007; St. Louis, MO 2008;
- NSTA/ISTA Regional Conference, Boise, Idaho, 2000, Phoenix, AZ, 2010
- Workforce Development Conference, Stennis Space Flight Center, Mississippi, 1999.
- SMCNWS Regional Conference, Seattle, Washington, 1999.
- NASA Western Regional Space Grant Conference, Santa Fe, New Mexico, 1996; Coeur d'Alene, Idaho, 1997 (Conference Chair).
- NASA Tri-State Initiative Conference, Arlington, Virginia, 1996.
- US West Multi-Media Conference, Seattle, Washington, 1995.
- NRMERA Regional Conference, Jackson Hole, Wyoming, 1995.
- NWATE Convention, Coeur d'Alene, Idaho, 1995, 1994.
- Far West Holmes Group Meeting, Coeur d'Alene, Idaho, 1994.
- Lewis and Clark University/GTE Telecommunications Conference, Portland, Oregon, 1993.

**State:**

- University of Alabama Noyce Conference, Tuscaloosa, Alabama, 2019.
- College and Career Models Leadership Summit, Arlington, TX, 2018

- Texas Out of School Time Conference, Grapevine, Texas, 2015
- Texas Gear-up Conference, Austin, Texas, 2014
- Texas Charter School Conference, San Antonio, TX, 2015; Austin, TX 2016; Grapevine, TX, 2017
  - University Charter SIG, 2015
- Texas Charter School Summit, Austin, Texas. 2019, Virtual, 2020.
- Texas Research Summit, Academy of Medicine, Engineering, and Science of Texas, Bastrop, TX, 2015
- Texas SBIR/STTR Conference, Austin, Texas, 2013
- Performance Analysis for Colleges of Education, CREATE, The Woodlands, Texas, 2013
- Texas Association of School Administrators. Austin, Texas, 2013; 2016
- Texas STEM Center Coalition, 2006-Present
- Texas Computer Education Association, Austin, Texas, 2012
- CCRS Conference Corpus Christi Texas, 2009; San Antonio, Texas, 2010
- MSTTPA Conference, San Marcos, Texas, 2010
- DANA Center Higher Education Conference, Austin, Texas, 2008, 2009
- PBL Institute (TSTEM), San Antonio, TX 2009
- STEM Best Practices Conference, South Padre Island, TX, 2009; Lubbock, TX, 2010.
- Texas Association of School Administrators, Austin, Texas, 2009.
- Performance Analysis System for Colleges of Education, Austin, Texas, 2008.
- SAME-TEC Conference, Austin, Texas, 2008.
- Texas Space Grant Conference, Houston, TX 2009
- Texas Regional Collaborative/T-STEM Summit, Austin, Texas, 2008
- Texas Regional Collaborative Annual Conference, Austin, TX, 2007-2017
- Texas High School Project Conference, Houston, 2007; Austin, 2008
- Project Lead the Way Leadership Conference, San Antonio, Texas, 2007; Houston, Texas 2009, Austin, Texas, 2010; Rockwall, Texas, 2014; Corpus Christi 2015, Austin, 2016; Dallas, 2017
- Texas High School Evaluation Conference, Austin, 2007, Houston, 2008, Dallas, 2009, Austin 2010
- Educator Preparation Instructional Leadership Academy, Austin, Texas, 2007.
- Conference for the Advancement of Science Teaching, Wichita Falls, Texas, 2006; Austin, 2007, Ft. Worth, 2018.
- Illinois New Teacher Collaborative Working Conference, Springfield, Illinois, 2006.
- Illinois Association of Colleges of Teacher Education, Kankakee, Illinois, 2005.
- Illinois NBPTS University Alliance Meeting, Bloomington, Illinois, 2005.
- Idaho Science, Mathematics, Technology Coalition, Boise, Idaho 2004
- Linking Leaders Conference, Boise, Idaho, 2002.
- Bridges to Learning Conference, Boise, Idaho 2002.
- Best Practices Boot Camp in Standards and Assessment, Boise, Idaho, 2001.
- Best Practices E-Boot Camp in Educational Technology, Boise, Idaho, 2000.
- Idaho Technology Showcase, Boise, ID, 2000.
- Idaho Earth Science Teachers Association, Boise, Idaho, 2000.
- Science, Mathematics, Consortium of Northwest Schools, State Action Meeting, Boise, Idaho, 1998-2000.
- Idaho Academy of Science Executive Committee Meeting, UI Representative, Boise, Idaho, 1999.
- Kentucky Education Technology Conference, Louisville, Kentucky, 1997.
- Mississippi Space Grant Consortium Annual Conference, Oxford, Mississippi, 1996.
- Idaho Academy of Science Conference, Moscow, Idaho, 1996.
- Idaho Space Grant Conference, Moscow, Idaho, 1996; McCall, Idaho, 1997; Moscow, Idaho, 2000,
- Coeur d'Alene, Idaho, 2005, 2009
- Idaho Science Teachers Association Convention, Idaho Falls, Idaho 2001, President Elect; Coeur

d'Alene, Idaho, 1999; Boise, Idaho, 1994, 1995, 1998; Jerome, Idaho, 1993.

- Hoosier Association of Science Teachers Convention, Indianapolis, Indiana, 1992, 1991.
- Conference for the Advancement of Science Teaching, Waco, Texas, 1989; Richardson, Texas, 1988; San Marcos, Texas, 1985; Duncanville, Texas, 1996, Fort Worth, 2018. .
- Smith County Education Summit, Tyler, TX, 2016.
- Annual Economic Outlook, Tyler Chamber of Commerce, Tyler, TX. 2014, 2015.
- STEM Accelerator Regional Thought Leader Convening, Bay Town, TX, 2015.
- Longview 2020 Education Convening, Longview, TX, 2015
- Women in STEM Initiative Convening, Stephen F. Austin State University, Nacogdoches, TX, 2015.
- East Texas Council Boy Scouts of America, Distinguished Citizen Awards, 2014.

## **Appendix 12: Recognition**

### **Teaching Honors and Awards**

- University of Idaho Alumni Award for Excellence, 2004-2005.
- Recognized by Former Students, UI Inspirational Teacher Scholarship Fund, 2001.
- Recognized by Former Students, UI Inspirational Teacher Scholarship Fund, 2000.
- GTE GIFT Fellow, 1987-88.
- Letter of Commendation from Texas Governor, William Clements, for Science Teaching, 1987.

### **Scholarship Honors and Awards:**

- Office of Sponsored Projects, Research Award for Grant Productivity. 2008, 2009.
- GLOBE Fellowship, University Corporation for Atmospheric Research, 2007-09.
- Researcher of the Year, Office of Sponsored Programs, University of Texas at Tyler, 2007.
- NASA Kennedy Space Center Faculty Fellowship, 2003
- Color Simulator Java Applet recognized by MERLOT as a “distinguished, high quality source of learning material”. <http://www.merlot.org> 2002
- UI College of Education Faculty Research Award, 2001.
- National NASA Space Grant Fellowship, 1996-97.
- National NASA Space Grant Fellowship, 1995-96.

### **Service Honors and Awards**

- Recognized by NASA for service to the NEWEST/NEWMASST program, 1997.
- Recognized by Vice President Al Gore and GLOBE for service to the program, 1996.
- UI Faculty Excellence Award for Service to the College of Education, 1996.
- Selected as a Distinguished UTD Alumnus to serve on Panel to Discuss Educational Issues, 1989.

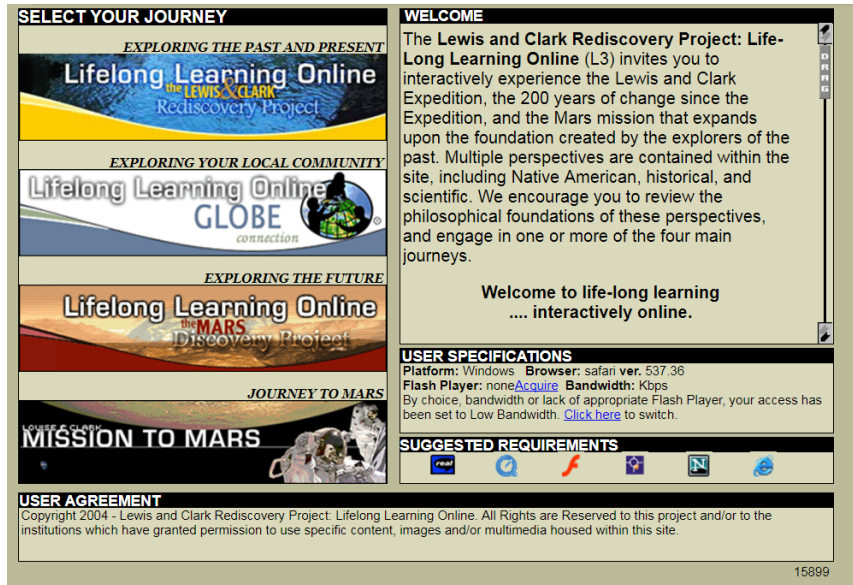
### **Program Awards**

- Granted 100Kin10 Partner Status, 2016
- Texas Association of Partners in Education, TAPE Crystal Award with Waxahachie ISD, 2014.
- Texas Prime Award for 21<sup>st</sup> Century After-School Program, 2013, 2014.
- Locals Love Us for the Discovery Science Place, 2012, 2013, 2014, 2015, 2016, 2017, 2018

### Appendix 13: Commitment to Diversity

Most of my work has been in the context of rural schools serving economically disadvantaged students. The evidence for this work can be found in several of the grants and contracts that I have had the opportunity to lead.

I am committed to the success of underrepresented and economically disadvantaged children no matter what the setting. I am also eager to listen and learn from others what I need to know to be effective



working with other cultures to meet their educational and cultural needs. For example, while at the University of Idaho, I was co-PI on a grant to celebrate the Lewis and Clark Bi-Centennial. One of the goals of that grant was to portray Lewis and Clark in the context of the past, present, and possible future. This included working with the Nez Perce Indian Nation to provide their perspective of the impact of Lewis and Clark. The deliverable was a website with curriculum to provide

historical perspective from Native Americans, the Lewis and Clark Journals, scientific studies of the Lewis and Clark trail and future possibilities of space exploration.

I have also had the opportunity to work on school improvement contracts helping turn around struggling schools in urban and rural areas. These projects have been in schools that serve large populations of Hispanic and African American Students.

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