

**Lori Ann A. Reinsvold, Ph.D.**  
**Associate Director**  
 MAST Institute, University of Northern Colorado

**Education**

University of Northern Colorado	Educational Psychology Minor: Applied Statistics & Research Methods	2011	PhD
Dissertation Title: <i>Power dynamics and questioning strategies in elementary science lessons</i>			
Purdue University	Education, Biology & Chemistry	1986	MS
Purdue University	Secondary Science Teacher Certification	1986	
Purdue University	Ecology, Evolution, & Population Biology	1982	BS

**Experiences**

Jan., 2016–July, 2017	MAST Institute	Acting Director
Spring 2015	MAST Institute	Interim Director
2013–Present	MAST Institute	Associate Director
Aug., 2017–Present	UNC’s HHMI STEM Inclusive Excellence Project	Co-PI
2017–Present	Colorado Center for Rural Education	Co-Director
2015–Present	Colorado Scholarship Opportunity Initiative – LEAP	Co-PI
2014–Spring, 2016	Northern Colorado STEM Collaboration	Director
2014–June 30, 2018	Eagle School District MSP	Director
2013–2014	Northern Colorado Math Collaboration	Director
2013–2014	Colorado STEM Teacher Preparation Symposium`	Director
2011–Present	Math and Science Teaching for English Learners	Director
2011–2014	Adams 14 Math and Science Partnership	Director
2010–Present	Noyce Scholarship and Internship Programs	Coordinator
2009–2011	NASA Research for Teachers Institute	Evaluator
2008–2010	Teacher Quality for Northeast Colorado School Districts	Director
2007–2013	MA in Natural Sciences with K12 Teaching Emphasis	Graduate Coordinator
2007–2011	Greeley 6 Math and Science Partnership	Director
2000–2013	Technology Literacy Center, MAST Institute	Director
Served UNC and the regional community since August, 1989		

**Honors**

- Distinguished Service Award, Colorado Association of Science Teachers, 2018.
- Friends of Science Award, Colorado Association of Science Teachers, 2011
- University of Northern Colorado, Graduate School, The Graduate Dean’s Citation for Excellence, August 5, 2011.
- University of Northern Colorado, College of Education and Behavioral Science’s Graduate Scholar, 2010-2011
- University of Northern Colorado’s 2008 Exempt Employee of the Year
- Center for Learning and Teaching in the West (CLT-W) Graduate Fellowship, 2005-2008

**Juried Publications**

Under Review. Franklin, E., Reinsvold. L.A., Harding, J., & T. Higgins. Culturally and Linguistically Diverse Pedagogical Content Knowledge in Mathematics and Science. *Journal of Teacher Education*.

Franklin, E., Reinsvold. L., Harding, J., & T. Higgins. (2018). Learning to teach mathematics and science to immigrant and refugee students leaning English as new language: The CLD\_PCK teacher education model for elementary schools. In L. Gómez Chova, A. López Martínez, & I. Candel Torres (Eds.), *International Conference of Education, Research and Innovation (ICERI) 2018 Proceedings* published by the IATED Academy, Valencia, Spain.

Cochran, K, Reinsvold, L., & Hess, C. (2016). Giving students the power to engage with learning. *Research in Science Education*. DOI 10.1007/s11165-016-9555-5.

Harding-DeKam, J., Reinsvold, L., Olmos, A., Song, L. Franklin, E., Enriquez, M., & Higgins, T. (Spring/Summer 2014). Mathematics and science teaching for English learners (MAST-EL) partnership: A relationship among elementary school teachers, pre-service teachers, and college faculty. *Teacher Education & Practice*, 27(2/3), 267-279.

Reinsvold, L. January, 2014. Supporting STEM Education. *January 2014 Educator Preparation Project Newsletter*. Colorado Department of Higher Education. (Invited)

Reinsvold, L. August, 2013. Leadership and professional development projects making a difference: Math and science teaching for English learners (MAST-EL). *Navigation Newsletter*. National Science Education Leadership Association.

Reinsvold, L. A., & K. Cochran. (2011). Power dynamics and questioning in elementary science classrooms. *Journal of Science Teacher Education*, 1-24. DOI: 10.1007/s10972-011-9235-2.

Gerretson, H. & L. Reinsvold. (2007). Science and Mathematics Teachers' Professional Use of Computer Based Technologies. *The Researcher*, 21(1), 22-31.

### **Professional Service**

Weld County School District 6 Science Curriculum Selection Team, Fall 2018 – Present.

Gathering Educational Assets & Resources for STEM Students, GEARS<sup>2</sup> (Weld County P-16 STEM Coalition Advisory Group), Co-Chair, Fall 2017 – Present.

Colorado Science Education Network (CSEN), Chair, Steering Committee, 2010 – Present.

American Educational Research Association, Division: Learning and Instruction; Science. Reviewed papers for annual meeting. Fall, 2017.

National Science Teachers Association, Chair of the Advisory Board for the Journal of College Science Teaching, April, 2017 – March, 2018.

Weld County School District 6 Strategic Planning Committee: College and Career Readiness, Member, Fall 2016.

National Science Teachers Association, Reviewer of submissions for the Journal of College Science Teaching, April, 2016 – Fall 2018.

Discussant for Colorado College IB Planning Summit, May 23-24, 2013, Colorado Springs, CO.

Secondary Science Education Reviewer for Colorado Department of Education's 2013 State Committee for the Presidential Award for Excellence in Mathematics and Science Teaching.

Elementary Science Education Reviewer for Colorado Department of Education's 2012 State Committee for the Presidential Award for Excellence in Mathematics and Science Teaching.

Lead Developer on 2009 Colorado Department of Education's Mathematics and Science Partnership (MSP) Grant Proposal for Adams 12 School District.

## Reports

Englert, K., Reinsvold, L., Kersey, E, & K. Stoddard. (Fall 2018). Inclusive Excellence: Interim Evaluation Report. Submitted to UNC's HHMI Inclusive Excellence Director, Susan Keenan, on December 31, 2018.

Englert, K., Reinsvold, L., Kersey, E, & K. Stoddard. (Spring 2019). Inclusive Excellence: Final Evaluation Report. Submitted to UNC's HHMI Inclusive Excellence Director, Susan Keenan, on June 30, 2019.

## University Service Publications

Reinsvold, L.A. (June, 2017) MAST Institute Annual Report.

Reinsvold, L.A. (June, 2016) MAST Institute Annual Report.

Reinsvold, L.A. (October, 2012) Five-year program review for Graduate Interdisciplinary Degree Program: MA in Natural Sciences with K12 Teaching Emphasis.

Reinsvold, L.A. (October, 2016) MAST Institute Annual Report (2015-2016)

## Selected Funded Projects (Secured over \$10 million for P-20 science and math education)

October 1, 2017 – June 30, 2018. Rude, H. (PI/Director), **Reinsvold, L.A. (Co-PI/Co-Director)**, Reinsvold, R.J. (Co-PI/Co-Director). Colorado Center for Rural Education: Supporting Rural Educator Recruitment and Retention. Colorado Department of Higher Education. \$500,000.

The Colorado Center for Rural Education that supports the recruitment and retention of educators to rural Colorado school districts through four activities: 1) University-Rural School District Partnership Mini-Grants, 2) Future Rural Teachers Conference, 3) Today's Students Tomorrow's Teachers Summer Enrichment Program, 4) Promoting the rural teaching profession through dissemination and advertising.

September 1, 2017 – August 31, 2022. Keenan, S. (PI), & **Reinsvold, L.A. (Co-PI/Coordinator of Assessment)**, & Novak, J. (Co-PI). Improving Classroom Culture to Support Intrinsic Motivation as a Pathway to STEM Inclusive Excellence, Howard Hughes Medical Institute (HHMI). \$1M.

By engaging a critical mass of STEM faculty and administrators in understanding students' experiences and perceptions of the conditions for intrinsic motivation, the project will dramatically shift UNC's institutional culture towards one of inclusive excellence in STEM. We will expand UNC's capacity for inclusion to engage all students by leveraging students' experiences in STEM classrooms. In particular, through surveys of all students and focus groups with underserved students, we will help STEM faculty surface and make visible students' experiences in STEM coursework with respect to classroom conditions for supporting intrinsic motivation. Our efforts focus on providing professional development to STEM faculty to help them engage in cycles of action research where faculty (1) gather data on students' experience of the intrinsic motivational conditions in the their classroom; (2) plan and implement a change in their instructional practice to improve the conditions; (3) gather data to analyze the impact of the change; and (4) undergo a transformational learning experience and fundamentally change how they see their role in underserved student success.

July 1, 2016 – June 30, 2021. Rude, H. (PI/Director), **Reinsvold, L.A. (Co-PI/Co-Director)**, Reinsvold, R.J. (Co-PI/Co-Director). Colorado Center for Rural Education: Supporting Rural Educator Recruitment and Retention. Colorado Department of Higher Education. \$2,205,475.

The Colorado Center for Rural Education is situated at the University of Northern Colorado and supports the recruitment and retention of educators in Colorado's rural school districts through four sustainable priorities: 1) expansion of the teacher cadet pipeline program that encourages middle and high school students from rural communities to consider teaching as a profession (i.e. development of Teacher Cadet programs in rural school districts and development of targeted recruitment initiatives throughout the year); 2) development of Rural Teaching Scholars from among pre-service junior and senior teacher candidates who commit to student teach in rural Colorado school districts and continue as practicing teachers in these districts upon graduation; 3) cultivation of a Rural Teacher Leaders program that prepares teachers in rural communities for expanded professional roles through participation in programs leading to become National Board Certified Teachers or receive Concurrent

Enrollment Certification; and 4) development of a coordinated Professional Development Network for rural educators that builds the capacity of school district induction and mentoring programs.

January 1, 2017 – June 30, 2018. \$99,687. **Reinsvold, L.A. (PI)**. Keenan, S. M. (Co-PI), Learning through Engaging and Authentic Practices (LEAP) Program. Colorado Opportunity Scholarship Initiative Grant Program, Colorado Department of Higher Education. (Co-PI)

With initiatives designed to enhance University access, provide strong advising and engage students in the classroom and through authentic research, the LEAP program provides academic and financial support to students in a manner that promotes their long-term success and persistence within their chosen major and, ultimately, as professionals within their field.

January 1, 2017- June 30, 2018. \$35,341. Eagle County Schools 2017 MSP Quality Teacher Induction and Instruction Project), funded by Colorado Department of Education. (PI)

The mathematics and science faculty at UNC provide content, pedagogical workshops for K-12 mathematics and science teachers in order to develop STEM integrated lessons.

Keenan, S. (PI), & **Reinsvold, L.A.** (Co-PI) & Novak, J. (Co-PI). (2015) Preproposal submitted to the Howard Hughes Medical Institute (HHMI) Undergraduate Science Education – Inclusive Excellence Grants 2017. Invited to Apply in October, 2016.

April 1, 2016 – June 30, 2018. \$112,000. Courage to Excel Scholarship. Colorado Department of Higher Education's College Opportunity Scholarship Initiative. (Collaborator)

The Courage to Excel Scholarship program at UNC will address attrition at two important points: (1) from high school to college and (2) from enrollment in an undergraduate program to graduation. Students in the following programs will receive scholarships: LEAP students, McNair Scholars, and Honors students.

July 1, 2015- June 30, 2016. \$19,726. Eagle School District Math & Science Partnership. Eagle School District Mathematics and Science Teachers Partnership (MSP), funded by Colorado Department of Education. (PI)

The mathematics faculty at UNC provide content, pedagogical workshops for K-8 mathematics teachers in order to develop mathematics lessons.

January 1, 2015 – May 30, 2017. \$150,000. Learning through Engaging and Authentic Practices (LEAP) Program. Colorado Opportunity Scholarship Initiative Grant Program, Colorado Department of Higher Education. (Co-PI)

With initiatives designed to enhance University access, provide strong advising and engage students in the classroom and through authentic research, the LEAP program provides academic and financial support to students in a manner that promotes their long-term success and persistence within their chosen major and, ultimately, as professionals within their field.

November, 2014. \$5,000. Colorado STEM Teacher Preparation Symposium, December 10, 2014. Gay & Lesbian Fund for Colorado, a program of the Gill Foundation. (PI)

This grant provided a one day, state-wide meeting for educators in universities & colleges, school districts, and non-profits involved in STEM teacher preparation.

November 1, 2014 – December 31, 2015. \$176, 757. Northern Colorado STEM Collaboration. Colorado Department of Higher Education – Title II. (PI)

UNC mathematics and science faculty will work with the Poudre Learning Center, Centennial BOCES, and Colorado Education Initiative staff to provide content, pedagogy, & assessment workshops to secondary mathematics & science teachers and administrators in order to develop and implement STEM lessons in the classroom.

July 1, 2014- June 30, 2015. \$18,240. Eagle School District Math & Science Partnership. Eagle School District Mathematics and Science Teachers Partnership (MSP), funded by Colorado Department of Education. (PI)

The mathematics staff at UNC provide content, pedagogical workshops for K-8 mathematics teachers in order to develop mathematics lessons.

December, 2013. \$5,000. Colorado STEM Teacher Preparation Symposium, December 11, 2013. Gill Foundation's Gay & Lesbian Fund for Colorado. (PI)

This grant provided a one day, state-wide meeting for educators in universities & colleges, school districts, and non-profits involved in STEM teacher preparation.

November, 2013 – December, 2014. \$161,228. Northern Colorado Mathematics Collaborative to Support Teacher Quality funded by Colorado Department of Higher Education – Title II. (PI)

This grant provided content, pedagogical and assessment workshops to secondary mathematics teachers and coaches in northeast Colorado.

September, 2011-August, 2016. \$1,800,000. Mathematics and Science Teaching for English Learners (MAST-EL), funded by the U.S. Department of Education. (Co-PI)

Provides UNC's pre-service elementary education majors and practicing elementary teachers in four Colorado school districts with content and pedagogical content knowledge professional learning communities to understand and practice how to effectively teach math and science to English Learners.

July, 2011- June, 2014. \$135,500. Subcontract issued by Adams 14 School District for Mathematics and Science Partnership (MSP), funded by Colorado Department of Education. (PI)

Provides science and mathematics content and pedagogical professional development to middle school teachers.

October, 2010. \$700. Power and questioning strategies in elementary science lessons, funded by MAST Institute, UNC. (PI). Funds for transcription for doctoral research.

September, 2010 – August, 2015. \$1,200,000. University of Northern Colorado's Robert Noyce Scholarship and Internship Programs, funded by National Science Foundation (NSF). (Co-I & Senior Personnel)

Provides scholarship and internships to UNC's science and mathematics teaching majors. Program will recruit and retain UNC teaching majors and graduate teachers for Colorado's high-need schools.

July, 2010 – June, 2011. \$52,488. Subcontract issued by Greeley/Evans School District 6 for Mathematics and Science Teachers Partnership (MSP), funded by Colorado Department of Education. (PI)

Provided science and mathematics content and pedagogical professional development to middle school teachers.

June, 2010 – May, 2013. \$409,903. NCAR Global Climate Change Research for Teachers Institute (RETI), funded by NASA. (CO-I)

In collaboration with NCAR, the project enhances STEM knowledge and pedagogical skills of twelve secondary level science teachers through coursework, research experiences, and planning of standards-based classroom modules that utilize NASA data to understand climate change and its impacts on society.

September, 2008 – August, 2010. \$236,506. Northern Colorado Mathematics and Science Improving Teacher Quality Partnership funded by Colorado Department of Higher Education – Title II. (PI)

This grant provided content courses, mentoring, and assessment workshops to secondary mathematics and science teachers in northeast Colorado.

May, 2007 – September, 2010. \$166,674. Subcontract issued by Greeley/Evans School District 6 for Mathematics and Science Teachers Partnership (MSP), funded by Colorado Department of Education. (PI)

Provided science and mathematics content and pedagogical professional development to middle school teachers.

April, 2007. \$10,000. Elementary School Cooperative on Math, Science, and Literacy: Greeley/Evans Area Teacher Training, funded by Agilent Technology Foundation. (PI)

Developed and provided science and mathematics professional development to elementary teachers.

March, 2007. \$55,800. e-Mentoring in Colorado – e-Mentoring for Science Student Success, funded by National Science Teachers Association. (PI)

Coordinated an on-line mentoring program in Colorado for first- through third-year secondary science teachers.

October, 2006. \$10,000. Elementary School Cooperative on Math, Science, and Literacy: Greeley/Evans Area Teacher Training, funded by Intel Corporation. (PI)

Developed and provided science and mathematics professional development to elementary teachers.

March, 2006. \$51,874. e-Mentoring in Colorado - e-Mentoring for Science Student Success, University of California - Santa Cruz, Mathematics and Science Partnership, funded by National Science Foundation. (PI)

Coordinated an on line mentoring program in Colorado for first- through third-year secondary science teachers.

September, 2004. \$68,708. Environmental Education and Outreach for Native Americans at the Shortgrass Steppe, funded by NSF-LTER Supplement. (CO-I)

Developed and provided challenge education and field-research experiences in the use of technology for teams of students and educators from three Native American Communities, which then returned to their schools with technology tools and skills to implement those strategies and processes into their science courses. Goal: to encourage and motivate Native American students to continue to take mathematics and science courses and consider careers in science.

June, 2003, \$37,775. Technology Support for Science Education, funded by the University of Northern Colorado's Student Technology Fund. (PI)

Developed and provided technology tools for UNC science and science-education courses, integrating technology in science teaching and learning.

September 2002 – August 2004. \$8,468. COMSTEC, funded by Colorado Partnership for Educational Renewal. (PI)

Provided Web services to the COMSTEC program.

September 2002. \$41,000. Science Education Technology, funded by IBM. (PI)

Provided laptops for science and science education courses at UNC.

October 2001 – June 2002. \$32,810. Tech Tools for Administrators, funded by Fund for Colorado's Future. (PI)

Developed and provided face-to-face technology skill workshops and on-line technology integration courses for Colorado principals and superintendents.

1996 – 2000. \$5,000,000. Widening Our World (WOW), funded by U S WEST Foundation (QWEST). (PI)

Developed and provided technology classes to educators, business people, and non-profit organizations on how to use the Internet. Classes delivered in Colorado and other states representing U S WEST service area.

### **Grant Submitted and Pending**

Gomez, K, (PI), Fisher, G. (Co-PI), Vivanco, J. (Co-PI), **Reinsvold, L.A.** (External Evaluator). *Designing a new course-based undergraduate research experience for the plant science curriculum*. Higher Education Challenge Program from National Institute of Food and Agriculture. May, 2019. \$298,307.

### **Grants Submitted But Not Funded**

Peffer, M, (PI), **Reinsvold, L.A. (Co-PI)**. Interdisciplinary Biology Education Research Group (I-BERG) Project. National Science Foundation, RCN-UBE Incubator. January, 2017. \$49,824.

**Reinsvold, L.A. (PI)** Subcontract to Weld County School District 6: Mathematics Teaching and Learning for Culturally and Linguistically Diverse Students. Proposal to Colorado Department of Education Math and Science Partnership Program, November 2016, \$161,817.

Wacker, R. (PI), Baber, A. (Co-PI), Novak, J. (Co-PI), Keenan, S. (Co-PI), & **Reinsvold, L.A. (Co-PI)**. (2016). NSF INCLUDES STEM Liaison Center. Preliminary proposal to National Science Foundation.

**Reinsvold, L.A. (PI)**, Keenan, S. (Co-PI), & Novak, J. (Co-PI). (2015). *STEM leadership in equity and diversity: First in the World (FITW)* Application. Grant for \$2,327,399. Submitted to US Department of Education.

**Reinsvold, L.A. (PI)**, Keenan, S. (Co-PI), & Novak, J. (Co-PI). (2015). University of Northern Colorado Teacher Preparation for Concurrent Enrollment Instruction. Grant for \$193,135. Submitted to the Colorado Department of Higher Education.

Rude, H. (PI), Reinsvold, R. (Co-PI), & **Reinsvold, L.A. (Co-PI)**. (2015). *University of Northern Colorado Rural Quality Teacher Recruitment Project*. Grant for \$194,444. Submitted to Colorado Department of Higher Education.

DeChenne, S.E. (PI), Elkins, J., Hoyt, W., & **Reinsvold, L.A. (Co-PIs)**. (2014). *Developing science literacy: Is there a place for Sasquatch?* Grant for \$1,699,541. Submitted to the National Science Foundation.

Crawford, S. (PI), Ball, L. (Co-PI), **Reinsvold, L.A. (Co-PI)**. (2009). STRATEGY: Improving secondary mathematics and science with integrated programming experiences. Grant for \$974,984. Submitted to the NSF Innovative Technology Experiences for Students and Teachers (ITEST).

Canine, C. (PI), Novak, J. (Co-PI), & **Reinsvold, L.A. (Co-PI)**. (2008). *Northeastern Colorado Mathematics and Science Partnership*. Grant for \$290,000. Submitted to the Colorado Department of Higher Education.

Novak, J. (PI), Schwenz, R. (Co-PI), & **Reinsvold, L.A. (Co-PI)**. (2007). *Northeastern Colorado Mathematics and Science Partnership*. Grant for \$663,687. Submitted to the Colorado Department of Higher Education.

### **Selected Juried Presentations (Over 250 presentations in the last twenty-eight years)**

**Accepted.** Rude, H., **Reinsvold, L.A.**, Reinsvold, R., Sherman, V., & Lane, B.. *Elevating leadership thru convening, connecting, and capacity building*. 50th Annual 2019 Colorado Association of School Executives (CASE) Convention, Breckenridge, CO. July 24, 2019.

**Invited.** Bogar, L., Reinsvold, L.A., Sherman, V. *Rural Teacher Recruitment and Retention, CASB Connections*. Retrieved from <https://www.stitcher.com/podcast/leslie-bogar/casb-connections>. June 13, 2019.

**Invited.** Reinsvold, L.A. *Weld County P-16 STEM Coalition Survey & Asset Maps 2019*. City of Greeley's Achieving Community Excellence (ACE) Board Meeting, Greeley, CO. February 28, 2019.

**Invited.** Reinsvold, L.A., Bruno, J. *Supporting Colorado science teachers to use the revised Colorado Academic Standards*. Colorado Board of Educational Services Winter Quarterly Meeting & Conference, Denver, CO. February 4, 2019.

Franklin, E., Reinsvold, L., Harding, J., & Higgins, T. Learning to teach mathematics and science to immigrant and refugee students learning English as new language: The CLD-PCK Teacher Education Model for elementary schools. 12<sup>th</sup> Annual International Conference of Education, Research and Innovation, Seville, Spain. November 13, 2018.

Keenan, S., Reinsvold, L.A., Novak, J., C. Bergstrom, Malcom-Piqueux, L. *Improving Classroom Culture and Achieving Institutional Change as Pathway to STEM Inclusive Excellence*. Association of American Colleges and Universities and Project Kaleidoscope Conference: Transforming STEM Higher Education, Confirming the Authority of Evidence, Atlanta, CO. November 9, 2018.

Reinsvold, L.A. *Increasing concurrent enrollment opportunities in rural schools*. National Forum to Advance Rural Education, Denver, CO. October 12, 2018.

- Keenan, S., Reinsvold, L.A., Novak, J., & Bergstrom, C. *Improving Classroom Culture as a Pathway to STEM Inclusive Excellence*. University of Northern Colorado Science Education Symposium, Greeley, CO. April 20, 2018.
- Higgin, T., Reinsvold, L.A., Franklin, E., & Harding, J. *Mathematics and Science Teaching for English Learners (MAST-EL)*. University of Northern Colorado Science Education Symposium, Greeley, CO. April 20, 2018.
- Franklin, E., Reinsvold, L.A., Harding, J., Higgins, T. *Mathematics and Science Teaching for English Learners (MAST-EL)*. University of Northern Colorado Research Day Poster Session, Greeley, CO. April 4, 2018. **INVITED**
- Mitchell, R., Quitter, M., Reinsvold, R., Reinsvold, L., & Rude, H. *Strategies for Recruitment and Retention of Rural Educators*. Colorado Department of Education Equity & Excellence Conference, Denver, CO. November 2, 2017.
- Reinsvold, L.A., Cleveland, L., Reinsvold, J.R., & Rude, H. *Best Practices to address recruitment and retention of rural STEM teachers: A University-school district partnership*. National STEM Education Research and Practice Summit, West Lafayette, IN. October 16 – 17, 2017.
- Reinsvold, L.A., & Franklin, E. *Symposium: Teacher Education Partnerships that Prepare Educators to Support ELs to Learn Mathematics and Science*. American Educational Research Association, San Antonio, TX. April 28, 2017. Presenters: Franklin, E., Reinsvold, L.A., Higgins, T., & Harding, J., Univ. Northern Colorado; Viesca, K., Univ. Nebraska; Song, K., Univ. Missouri, St. Louis. Discussant: Herrera, S., Kansas State University.
- Franklin, E., Reinsvold, L.A., Higgins, T., & Harding, J. *Culturally and linguistically diverse pedagogical content knowledge: A teacher reform model*. American Educational Research Association, San Antonio, TX. April 28, 2017.
- Johnson, J., & Reinsvold, L.A. *Designing Inclusive STEM Organizations*. Colorado Science Education Network state-wide meeting, Boulder, CO, December 2, 2016. **INVITED**.
- Reinsvold, L.A., Reinsvold, R.J., Clark, S., & Finnegan, M. *Designing Integrated STEM Lessons*. Western Noyce Regional Conference, San Diego, CA. November 14, 2015.
- Abbood, A., Reinsvold, L.A. *Supporting Language and Discourse in Mathematics*. Colorado Council of Teachers of Mathematics Annual Conference, Denver, CO. September, 25, 2015.
- Reinsvold, L.A., *Power dynamics in science lessons: Engagement through discourse*. NREL/ESS Spring 2015 Seminar Series, Science education beyond borders: Immersing audiences across the globe in science and research. Colorado State University, Fort Collins, CO. April 24, 2015. **INVITED**.
- Harding-DeKam, J., Olmos, A., Enriquez, M., & Reinsvold, L.A. *The Linguistically Diverse Pedagogical Content Knowledge Mathematics and Science Teacher Observation Tool: An observation tool to assess the use of pedagogy and pedagogical content knowledge in math and science for English Learners*. American Evaluation Association 2014 Annual Conference. Denver, CO. October 15, 2014.
- Reinsvold, L.A., Keenan, S.M, Reinsvold, R.J., Cleveland, L.M., & Adams, W.K.. *Colorado STEM Teacher Preparation Symposium – A state collaboration*. American Association of Colleges and Universities, Atlanta, GA. November 7, 2014.
- Cochran, K., Reinsvold, L.A., Hess, C.. *Giving students the power to learn science*. American Educational Research Association Annual Conference, Philadelphia, PA. April 4, 2014.
- Harding-DeKam, J., Reinsvold, L.A., & Song, Y. *Linguistically diverse pedagogical content knowledge: Mathematics and science observation tool for elementary teachers*. American Educational Research Association, Philadelphia, PA. April 7, 2014.
- Reinsvold, L.A. *Collaborative & language support strategies for ELL in science*. For National Science Education Leadership, Tools for Leaders. National Science Teachers Association Regional Conference, Denver, Co. December 13, 2013.



Reinsvold, L.A., Song, Y., Higgins, T., Abbood, A., & L. Dye. *Science teaching for English learners: An elementary school and university partnership*. National Science Teachers Association Regional Conference, Denver, Co. December 12, 2013.

Reinsvold, R. & Reinsvold, L.A., *Preparing the next generation of science teachers*. National Science Teachers Association Regional Conference, Denver, CO. December 13, 2013.

Reinsvold, L.A. & Cochran, K. Classroom power and questioning: A case study of an effective teacher. Paper presented to the American Educational Research Association, San Francisco, CA. April 29, 2013.

Reinsvold, R., Reinsvold, L.A., Craviotto, C., Middleton, V., & J. Sexton, J.. *The Noyce scholarship program at the University of Northern Colorado*, Poster presented at the NSF 2013 Annual Noyce Meeting, Washington, DC, May 30, 2013.

Gardiner, C.S., Adams, R.A., DeKrey, G., Reinsvold, R., Reinsvold, L.A. & Sexton, J.. *Recruitment and retention of biology majors at the University of Northern Colorado*, Poster presented at the NSF 2013 Annual STEP Meeting, Washington, DC, March 14, 2013.

Hatheway, B. & Reinsvold, L.A.. *A new model for climate science research experiences for teachers*. Poster presented at the American Geophysical Union Meeting, San Francisco, CA, December 4<sup>th</sup>, 2012.

Reinsvold, R., Reinsvold, L.A., Adams, W., Galovich, C. & Sexton, J.. *Preparing the next generation of science teachers*. Presentation at the Colorado Science Conference, Denver, CO, November 16<sup>th</sup>, 2012.

Reinsvold, L.A. *Explores Graduate Science Education Opportunities at the University of Northern Colorado*, Colorado Science Conference, Denver, CO, November 16<sup>th</sup>, 2012.

Reinsvold, R., Reinsvold, L.A., Craviotto, C., Middleton, V. & Sexton, J.. *The Noyce scholarship program at the University of Northern Colorado*, Poster presented at the NSF 2012 Annual Noyce Meeting, Washington, DC, May 25, 2012.

Reinsvold, L.A., Franklin, E., DiMarco, S. & Dye, L.. *Strategies for teaching English learners math and science*. Presentation at the 5<sup>th</sup> Annual National Summit: Great Teachers for Our City Schools, Denver, April 12, 2012.

Gardiner, C.S., Adams, R.A., DeKrey, G., Reinsvold, R., Reinsvold, L.A. & Sexton, J.. *Recruitment and retention of biology majors at the University of Northern Colorado*, Poster presented at the NSF 2012 Annual STEP Meeting, Washington, DC, March 15, 2012.

Farr, B., A., Reinsvold, L.A., Harty, L. & Fraser, J.. *Climate change education projects: Advancing the dialogue through effective use of evaluation strategies*. Paper presented to the American Evaluation Association, Anaheim, CA, November 4, 2011.

Reinsvold, R., Reinsvold, L.A., Medford, J., Craviotto, C., Middleton, V. & Sexton, J.. *The Noyce scholarship program at the University of Northern Colorado*, Poster presented at the NSF 2011 Annual Noyce Meeting, Washington, DC, July 6, 2011.

Cochran, K. & Reinsvold, L.A.. *Power dynamics and questioning in elementary science classrooms*. Paper presented to the American Educational Research Association, Denver, CO. May 1, 2010.

Reinsvold, L. & Reinsvold, R.. *Using Backward Design with student data to inform instruction*, Presentation at the Colorado Science Conference, Denver, CO. November 20, 2009.

Reinsvold, L., Tschillard, R., Higgins, T., & Reinsvold, R. *Establishment of a Northern Colorado coordinated education framework for math and science*, Presentation at the NSTA Area Conference, Denver, CO. November 10, 2007.

Swanson, E., Carlton-Hug, A., Reinsvold, L.A. & Segal, S.. *Cross-center collaboration: Creating a new on-line course "Designing, Facilitating & Investigating On-line Learning"*. CLT-W Research Forum. Ft. Collins, CO. April 21, 2006.

Reinsvold, L.A. & Warnock, A.. *Integrating technology into Colorado's CLT-W professional development*. Colorado Science Convention. Denver, CO. November 18, 2005.

Reinsvold, L.A., Moore, J., Wang, R. & Rosenberg, W.. *Environmental education and outreach for secondary Native American educators and students*. Poster presented at CLT-W Research Forum, Bozeman, MT. April 19, 2005.

Higgins, T., Ebomoyi, J., Morrow-Baker, A., Koski, K. & Reinsvold, L.A.. *Microbial explorations: An on-line/on-campus microbiology course for elementary educators*. Poster presented at CLT-W Research Forum, Bozeman, MT. April 19, 2005. (poster)

Higgins, T., A. Morrow-Baker, J. Ebomoyi, K. Koski, and L. Reinsvold. *Microbiology of elementary educators: designing an on-line course*. Poster presented at the Rocky Mountain Branch – ASM, Denver, CO. April 16, 2005. (poster)

Reinsvold, L. *On-line and handheld systems*. UNC Assessment Forum: Conducting Assessments with Technology, Greeley, CO. March 23, 2005.

Kellogg, N., Reinsvold, L.A., Viney, M., Warnock, A., Sexton, J. & Kennedy, P.. *CLT-W's professional development activities in Colorado*. Association for Education of Teachers in Science 2005 International Annual Meeting, Colorado Springs, CO. January 20, 2005.

Moore, J., Reinsvold, L.A., Wang, R. & Rosenberg, W. *Environmental education and outreach for secondary Native American educators and students*. Poster presented at SGS-LTER Spring Symposium, Fort Collins, CO. January 14, 2005.

Reinsvold, L.A. & Brown, J.. *Technology tools for science investigations*. Colorado Science Convention, Denver, CO. November 19, 2004.

Reinsvold, L.A. & Brown, J.. *Uses of handhelds in the classroom*. Colorado Science Convention, Denver, CO. November 19, 2004.

Nelson, K., Kosiak, K., Reinsvold, L.A., Rectanus, C., Farmer, J., Chambers, R., Gerretson, H. & Erickson, D. *Improving student achievement in mathematics in low-income high-minority schools through teacher learning and access to computer technology*. The National Council of Teachers of Mathematics Conference, Research Pre-session, Philadelphia, PA. April 21, 2004.

Reinsvold, L. & Tuthill, G. *A view of the distance learning landscape*. Center for Learning and Teaching in the West (CLT-W), Portland, OR. February 8, 2002.

### **Certifications and Professional Development**

Intercultural Development Inventory, Qualified Administrator, Portland, OR, May 15-17, 2019

Courageous Conversations, Beyond Diversity: Addressing racism, Greeley, CO. May 21–22, 2019

NSTA NGSS 3D Learning Workshop, Denver, CO. February 12 – 13, 2019

### **Ph.D. Committee**

2017–Present Ashley Heim, Ph.D. Student, Biology Education, UNC

2017–2018 David Williams, Ph.D. Student, Educational Psychology, UNC

## **Advisees**

2018-Present Dr. Elizabeth Kersey, Postdoctoral Research Associate, MAST Institute, UNC  
2017-2019 Dr. Andrew Bentley, Postdoctoral Research Associate, MAST Institute, UNC  
2016-2017 Sara Monson, Masters Student, MA in Science Education, UNC  
2016 Gayle Cooper Masters Student, MA in Science Education, UNC  
2014-2016 Dr. Lacy Cleveland, Postdoctoral Research Associate, MAST Institute, UNC  
2014-2016 Laura Funk, Masters Student, MA in Science Education, UNC  
2013-2014 Jan Bamesberger, Masters Student, MA in Natural Sciences with K-12 Teaching Emphasis, UNC  
2013-2014 Kristine Bibbey, Masters Student, Graduate Interdisciplinary Masters, UNC  
2010-2011 Sarah Bruemmer, Masters Student, MA in Natural Sciences with K-12 Teaching Emphasis, UNC

## **Service**

Equity Minded Action Team (Spring 2018 – Present)  
Colorado/Wyoming Junior Academy of Science Program Coordinator, University of Northern Colorado (Spring 2018-Spring 2019)  
Assistant Dean & MAST Institute Director Search Committee. (Fall 2016 – Spring 2016)  
MAST Institute Administrative Assistant, Search Committee (Fall 2017)  
MAST Institute Post Doctoral & Research Associate Search Committee Chairperson, (Spring, 2017)  
MAST Institute Vision & Mission Development Committee, Member (Spring, 2017)  
Assistant Dean and MAST Institute Director Search Committee, Member (Spring, 2017)  
Leadership Team, College of Natural and Health Sciences, Member (2016 – 2017)  
Colorado Department of Education STEM Think Tank, Member (2013-14)  
UNC's Graduate Interdisciplinary Degree Program: MA in Science Education (Previously - Natural Sciences with K12 Teaching Emphasis), Graduate Program Coordinator (2005-2013)  
UNC's Science Education Coordination Committee (SCED), Chair (2006-2017)  
Full Option Science Systems (FOSS) Regional Consortium, Committee Member (2005-2012)  
Greeley School District 6 and UNC Math, Science and Literacy Partnership, Leadership Team (2005 - 2009)  
Caring for our Watershed (Grades 9 – 12) Reviewer (2012-2015)

## **Courses Taught through the University of Northern Colorado**

SCED 513, Peak to Prairie, Summer 2019  
BIO 102, Success in Biology, Fall 2017  
SCED 697, Action research in science education III, Spring 2016  
SCED 696, Action research in science education II, Spring 2016  
SCED 695, Action research in science education I, Fall 2015  
PSY 349, Educational psychology for secondary teachers, Fall 2011  
SCED 513, Teaching English learners physical science through language, inquiry, and math instructional strategies. Summer 2012  
SCED 513, Teaching and learning elementary science through inquiry-based instructional materials and strategies, Summer 2010, Summer 2011  
SCED 513, Instructional strategies for science - eMSS, Fall 2006-07, Spring 2009  
MED 513, Instructional strategies for math – eMSS, Spring 2009  
BIO 100, Introductory Biology, Spring 1990

## **Professional Organizations**

American Educational Research Association 2009 – present  
National Science Teachers Association 2011- Fall 2018  
Colorado Association of Science Teachers 2011 - present  
National Science Education Leadership Association 2012 - 2014

## **Collaborators**

Harvey Rude, Valerie Sherman, Kathy Cochran, Elizabeth Kersey, Susan Keenan, Cassie Bergstrom, Elizabeth Franklin, Robert Reinsvold, Jennifer Parrish, Jodie Novak, Henry Heikkinen, Kevin Pugh, Jenni Harding, Teresa Higgins, Julie Sexton, Katrina Rodriguez, Fleurette King, Tobias Guzman, Stephanie Torrez, Karen Raymond, Talia Carroll, Patricia Escobar (UNC); Nancy Kellogg, Ray Tschillard (Science Education Consultants); Diana Riley, Stacie Datteri (Greeley-Evans School District Six), Joanna Bruno (Colorado Department of Education), Brittany Lane (Colorado Department of Higher Education); Mark Rangel (Centennial BOCES).