

Susan E. Ramlo, PhD

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Professional Vision:

Research should be the cornerstone for everything we do in academia including teaching. Student learning should offer students new employment opportunities but also lead to informed citizenry and a broadening of perspectives. Service offers opportunities for all to share expertise within academia, professional societies, and the public.

Summary:

- I have demonstrated **leadership** in industry, in academia, and within professional societies with a focus on transformative change. When I was an industrial physicist my duties included supervision of Quality Assurance, Crystal Growth, and the Applications Lab as well as a leader for product development. At The University of Akron I have been a program coordinator / director for 20 years, led committees at the department, college, and university level, and provided professional development at the department, college, university, and professional-society levels. I have served as President of an international professional society, [ISSSS](#), and a regional organization, [Ohio Section of the American Association of Physics Teachers \(OSAAPT\)](#). Society work during included updating By-Laws and seeking new and innovative ways to recruit members, updating the conference/ professional meeting framework, and improving membership involvement within the organizations. At The University of Akron, I have lead teams and committees at the department, college, and university level including curriculum review, program assessment, and professional development.
- I am nationally recognized as a Physics Education / Physics Education Research (PER) expert and a **STEM** (science, engineering, technology, and math) education expert. This recognition is represented through: my selection by the [arXiv.org](#) team (based out of Cornell University) to be the physics-education moderator for their international e-print repository; [my peer-reviewed journal publications](#); and my interviews by national periodicals such as [The Nerd Scholar](#) and [US News & World Report](#). As a former industrial physicist with a PhD and 20 years of academic experience at The University of Akron, I am a uniquely qualified STEM education expert and researcher. For two years, starting in 2011, I was UA's STEM liaison to the Akron Public Schools' (APS) [STEM MS](#) and [STEM HS](#) with duties that include developing innovative secondary school curriculum, providing in-service teachers professional development, facilitating problem-based learning experiences, and producing novel STEM education and career experiences at the university for middle and high school students. As a member of the [STEM Executive Committee](#) (a partnership among UA, APS, the City of Akron, Akron Greater Chamber / Akron Tomorrow, and Invent Now), I shared my expertise in STEM education and experiences as liaison as well as provided input on the development of marketable STEM and PBL programming and training experiences.
- Internationally I am a recognized a research methodologist in the **Q methodology** community (a mixed research method) and the **Mixed Methods research** community as indicated by my past positions on the Executive Committee of [International Society for the Scientific Study of Subjectivity](#) (I4S) including president, past-president, and inaugural advisor, [2010 ISSSS Conference host](#), past position on the Editorial Board of the society's journal [Operant Subjectivity: the International Journal of Q Methodology](#), invited presentations at Q conferences, and a book chapter on Q Methodology in the [SAGE Handbook of Mixed Methods in Social & Behavioral Research \(2nd edition\)](#) with a second chapter in progress. I was recently interviewed as one of 12 methodologists with a **long-term involvement in mixed methods research** for a dissertation at Virginia Tech – <http://vtechworks.lib.vt.edu/handle/10919/19324>. I have been sought as an

External Reviewer for RTP candidates whose research includes Q Methodology and/or Mixed Methods Research. I have worked as a research consultant most often in respect to studying subjectivity using Q methodology within a variety of contexts from program evaluation to caregiving to medical education.

- I have been recognized for **teaching excellence** at the department, college, university, regional, state, and national level, including The University of Akron Outstanding Teacher-Scholar Award, the [Northeast Ohio Council on Higher Education](#) (NOCHE) Award for Teaching Excellence, [Ohio Magazine](#) Excellence in Education feature, and Who's Who Among America's Teachers (twice). Whether teaching physics, computer programming, preservice teacher education, or graduate research classrooms, I constantly strive for improved and innovative teaching and learning with infused best practices including inquiry, problem-based learning, collaborative group work, concept-questions/ clickers, and flipped classrooms. My teaching focuses on the active engagement of students based on cognitive science research.

Related Skills:

Software: SPSS, SAS, PQMethod, MS Office, Desire2Learn (online course management system), C programming, Panopto video capture, RefWorks, Logger-Pro, Prezi, Audacity.

Specialization: Physics Education Research, P-20 STEM Education, Q Methodology, Mixed-methods research, Conceptual Change, Program Assessment & Evaluation including needs assessments, Inquiry-based science laboratories and curriculum development, Concept-test development / validation, classroom response systems usage, flipped-classroom design / development / implementation, problem-based learning (PBL).

Certificates: Quality Matters Certificate (online teaching)

Education:

2003 PhD in Curricular & Instructional Studies (Secondary science/physics education), University of Akron, Akron, Ohio; GPA 3.985 / 4.00 scale

Dissertation: *A Multivariate Assessment of the Laboratory Homework Component of a Microcomputer-based Laboratory in a College Freshman Physics Course.*

Advisors: Isadore Newman & Francis Broadway

1986-7 PhD program in Physics, University of Toledo, Toledo, Ohio
Graduate Students Association Secretary & board member, 1987

1986 Master of Science in Physics, Miami University, Oxford, Ohio
GPA 3.6 on 4.0 scale; Sigma Pi Sigma Physics Honorary
Thesis: *X-ray Induced Fluorescence of Rare-Earth Doped and Ultra-Pure CaF₂*
Advisor: S. D. Marcum

1984 Bachelor of Science in Physics & Astronomy and Mathematics, Mount Union College, Alliance, Ohio; GPA 3.1 on 4.0 scale;
Physics Department Prize, 1984; Vice President and Founding Member of Society of Physics Students, 1983-1984; College newspaper, 1980-4; Mount Marchers, 1980-4; Homecoming Dance Chairman, 1981

Academic Experience:

2008- Kent State University, Kent, OH
present

Adjunct & Member of the Graduate Faculty, Department of Physics

- Dissertation co-chair for Claudia Bartley –Proposal passed/ dissertation research in process Physics Education Research.
- Dissertation committee & methodologist for Vanessa Earp (2016-present).

1994 to present The University of Akron, Akron, Ohio

1994 to present **Professor of General Technology-Physics**, Department of Engineering & Science Technology, College of Applied Sciences and Technology¹ (2003- present; Associate 1999-2003; Assistant 1994-9)

Provide leadership at the course, program, department, college, & university via numerous activities including task forces, learning communities, and committees. Develop curriculum, including entire courses and laboratories, in software applications, computer programming, and physics. Focus on improving student learning through action research, educational technology, and improved pedagogy.

Leadership includes training other instructors, scheduling classes, program assessment, documentation, and development of procedures. Committees include department Merit Guidelines document committee (led development); Department Chair Review document (led development); Reappointment, Tenure, and Promotion Guidelines document (led development); Distinguished Professor and Emeriti Guidelines (led document development); College Program Assessment Committee; Higher Learning Commission Assessment Academy (HLCAA), and University-wide Program Assessment Committee.

1996 - present **Program Director** (formerly Coordinator) of General Technology area

Provide leadership to the 2820 General Technology area within the Department of Engineering & Science Technology by creating class schedules, making instructor assignments, assisting instructors with pedagogy, dealing with student issues such as cheating and complaints, developing curriculum, and approving purchases from the student-fee budget for the area.

2014 – present **Professor of Physics** (joint appointment), Department of Physics, Buchtel College of Arts & Sciences (August 25, 2014 – August 29, 2018).

2011-2013 **Special Project – STEM Education Initiatives & Liaison to the National Inventors' Hall of Fame© (NIHF) STEM (Science, Technology, Engineering, & Math) Middle School, NIHF STEM High School, Ohio STEM Learning Network Akron Hub, and Partnership for Innovation and Creativity (PIC)** (July 2011 – August 2013).

- Worked with partner organizations connected to regional STEM education initiatives: Akron Public Schools (APS), Invent Now (formerly the National Inventors' Hall of Fame©), Akron Chamber of Commerce / Akron Tomorrow, The University of Akron, and the City of Akron.
- Represented The University of Akron as a member of the STEM Partnership Executive Committee which includes representation from the above partnerships.

¹ Formerly known as the Community & Technical College and as Summit College

- Served as The University of Akron facilitator for development and initiation of the Akron Public Schools' (APS) NIHF STEM High School which opened in August 2012. Assisted in the development of the school's conceptual framework, curriculum, and career exploration experiences.
- Facilitated various aspects of the development of the NIHF STEM HS through representation on each NIHF STEM HS committee and coordination of other representation on those committees by UA faculty, staff, and administrators. Committees entailed development and implementation of all aspects of the new STEM HS: curriculum, assessment, progressive student experiences, professional work experiences, and technology.
- Provided input for architectural aspects of the former Central-Hower High School space to adapt these areas to conform to the cutting-edge curriculum and collaborations. (July 2011 – September 2012).
- Linked expertise needed within the STEM schools to expertise at The University of Akron to facilitate various projects primarily connected to authentic Problem-Based Learning (PBL) experiences for STEM students; Assisted in bringing authentic, interdisciplinary PBL experiences to teachers and administrators at the STEM schools for implementation within the curriculum; utilized UA researcher expertise to assess and improve the STEM schools.
- Developed innovative activities for STEM students that allow them to interact with UA faculty, staff, administrators and students including:
 - STEM Exploration Stations – Five separate dates; 100 STEM HS 9th graders spent approximately 1.25 hours, in groups of 15-20 students each, performing authentic hands-on and engaging activities associated with STEM careers and majors at The University of Akron including several unique majors: Computer Information Systems (Cisco networking), Environmental Nutrition, Geographic Information Systems, Surveying and Mapping, Physics, Chemistry, Biomedical Simulations, Biomedical Engineering, and Fuel Cells.
 - March to Campus Phase II – Approximately 100 NIHF STEM 8th graders spent 2.5 hours exploring potential majors at The University of Akron at five (5) different colleges, depending upon their career interests, including table-talk with undergraduates and hands-on explorations.
 - Anecdote circle project to investigate NIHF STEM HS students' views of their PBL experiences; developed to both assess and improve the PBL experiences.
- Produced and provided Professional Development experiences for the STEM HS teachers (learning coaches).
- Developed the conceptual framework for a STEM Academy at The University of Akron, as expressed within a white paper provided to The University of Akron leadership and used to develop grant proposals within The University of Akron and National Science Foundation. The purposes of the STEM Academy were to:
 - Generate a more diverse, collaborative, university-wide approach to STEM education on campus and with various regional partners including APS & the City of Akron. The overarching goal of the STEM Academy is to transform P-20 STEM education at the university and within the region.

- Catalyze and instigate multi- and interdisciplinary approaches to STEM education that offer regional solutions to education in science, technology, engineering, mathematics, and medicine.
- Align STEM education initiatives with the University of Akron's Vision 2020 strategic plan.
- Create a sustainable, faculty driven process to develop and maintain the STEM Academy that also incorporates feedback from key administrators and staff.
- Seek funding revenues to support this initiative.

2008-2014 **Professor of Education** (*joint appointment*), Department of Curricular & Instructional Studies (September 2008 – May 2014).

Dissertation students:

- Co-chair / methodologist: Joe Jurcyk, John B. Nicholas (2010), Amy Hollingsworth (2013), Laura Richardson (2016).
- Committee member: Jan Naher-Snowden, Deborah Hardy (2013)

Courses taught within the College of Education:

- 5500:230 – Educational Technology is a required course for all pre-service teachers. Students investigate, integrate and evaluate emerging technologies to support development of 21st century learning and innovation skills: communication and collaboration, creativity and innovation, critical thinking and problem solving, as well as information, media and technology skills. (C& I, Fall 2012)
- 5300: 420/5500: 520 Instructional Techniques, Secondary Education/Math & corresponding 5300:421/5500:521 field experience (C& I, Spring 2011)
- 5100:590:001 Introduction to Q Methodology Workshop (Foundations & Leadership)
 - Summer 2010 – This hybrid course (online & face-to-face) introduced participants to the ideas of subjectivity, grouping of people, and Q methodology.
 - Summer 2012 – Offered 100% online; included an online presentation, discussion board, and development of a concourse / Q sample.
- 5500:898 – Independent study developed in conjunction with individual graduate students:
 - Spring 2010 – John Nicholas - Investigating engineering educators' views of classroom technology using Q Methodology (2 credit hours)
 - Spring 2014 – Laura Richardson – Investigating views of obesity including concourse development (3 credit hours)

2008 **Adjunct Professor with Temporary Graduate Status**, Department of Chemistry (Summer 2008)

Taught graduate level workshop for science educators - 3150:592:002 Special Topics: Teaching Key Physical Science Concepts (Physics) funded by **NEOCEx**.

1986-7 University of Toledo, Toledo, Ohio

Graduate Teaching Assistant; Instructed laboratory sections of Engineering Physics (calculus based for engineering & science majors) & Natural Science (for education majors).

- 1984-6 Miami University, Oxford, Ohio
Graduate Teaching Assistant; Instructed labs for Optical & Electronic Measurements for Scientists, General Physics, & University Physics; Graded for Electronic Instrumentation, General Physics, & Optics and Spectroscopy
- 1982-4 Mount Union College, Alliance, Ohio
Laboratory Assistant for Classical Physics & for Descriptive Astronomy

Industrial Experience:

- 1988 - Bicon, A Division of Saint Gobain/Norton Industrial Ceramics, Solon, Ohio (formerly known
 1994 as Harshaw Crystals & Detectors)
Physicist
- 1992-4 Advanced Science Department: Sole technical support for \$5M project for Fermi National Laboratory; Developed production processes, documentation, & ISO 9000 quality assurance program. Utilized Computer Automated Measurement and Control (CAMAC) for nuclear testing;
- 1988- Applications Laboratory: Provided technical support for sales, engineering, production, and
 1992 quality assurance; Performed material characterization & qualification, product development & documentation, project leadership, & training.
- Improved radio-immuno-assay unit design resulting in a 5% decrease in cost per unit, a 5% increase in performance, and a 30% increase in lifetime in the field.
 - Supervised & trained summer students 1991 & 1992
 - Created & taught scintillation training course for technical staff
 - Developed documentation of processes and process improvements
- 1989- Crystal Growth: Technical support for production area of forty (40) Stockbarger alkali-halide
 1991 furnaces; Performed growth parameter design, material selection, ingot evaluation, problem solving, process improvement, yield improvement, & updated and improved documentation.
- Improved yield of CsI(Na) ingots by 40%
 - Reduced crystal growth process time by 5%
 - Developed documentation of processes and process improvements
- 1988-9 Final Quality Assurance Supervisor: Oversaw all aspects of quality assurance for \$9M annual
 scintillation-based radiation detector business; Performed specialized product acceptance testing; Provided technical support and supervision for three (3) full-time operators; Selected, improved, & maintained electronic test equipment, computers, & software; Developed & documented test procedures.

Graduate, Honors, and McNair Students:

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- 2017 – Donna McClean, EdD, College of Education, Information and Technology, Long Island
 2018 University. *Exploratory Study: Student Perspectives on the Design, Delivery and Andragogical Focus of E blended Vocational Training Programs for Allied Health Careers*. Dissertation member and Q methodology specialist. Successfully defended 4/25/18.
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2016 - 2018	Steve Mumford, PhD in Public Policy & Administration, Columbian College of Arts and Sciences, George Washington University. <u>Ways of Knowing in Participatory Program Evaluation</u> . Dissertation committee member and Q methodology specialist. Completed.
2014 - 2016	Laura Richardson – PhD (2016), College of Education, Curricular & Instructional Studies, The University of Akron. <i>Weightism: An Exploration of University Exercise Science Students' Views of Obesity</i> . Co-chair of Dissertation Committee & Methodologist; Comprehensive Exam Question Writer (Summer 2014); Proposal passed (Fall 2015); Defense passed (Spring 2016); Graduated 5/12/16.
2016 – present	Vanessa Earp – PhD program, Kent State University. Dissertation methodologist.
2015-6	Jamie Parker – Integrated Biology Program, The University of Akron. Advisor & Chair of PhD Advisory Committee including coordinating written comprehensive exams.
2015	Silvana Nicolas – Master Degree (2015) – Department of Statistics, Buchtel College of Arts & Sciences, The University of Akron. <i>Obstacles that Impede College Students and their Academic Success</i> . Project reader & Methodologist (Q expert)
2014	Edward Stevens - Honors Student - College of Education, Curricular & Instructional Studies, University of Akron. <i>Participant views about snakes before and after events at the Stone Lab Institute at Put In Bay</i> . Research Project Student Sponsor
2012- 2013	Aimee DeChambeau – PhD program, Prescott College (Prescott.edu). Practicum I and II supervisor - IRB applications, proposals for research, research design, etc.; The Practicum is required for her PhD from and focuses on using Anecdote Circles within the context of PBL in the NIHF STEM High School.
2012- 2013	Amy Hollingsworth – PhD, College of Education, Curricular & Instructional Studies, University of Akron. <i>Q Methodology as a needs assessment tool for biology graduate teaching assistants participating in an instructional training program</i> . Co-chair of Dissertation Committee & Methodologist; Comprehensive Exam Question Writer (Summer 2012); Proposal Defense (Spring 2013); Dissertation Defense (Fall 2013)
2012	Dana Crawford – Honor Student – College of Education, Curricular & Instructional Studies, The University of Akron. <i>Inquiry-Based Learning in Modern Mathematics Education</i> . Honors Research Project Student Sponsor
2011-12	Laura Magni & Brian Dudek - Honors Students - College of Education, Curricular & Instructional Studies, University of Akron. <i>Why the Divide? Investigating Student Views about Mathematics</i> . Honors Research Project Student Sponsor
2011- 2013	Deborah Hardy – PhD, College of Education, Education Foundations & Leadership, University of Akron. <i>Learning Strategies and Motivational Patterns, as Measured by the Motivated Strategies For Learning Questionnaire, Among Students Pursuing Nursing and Allied Health Careers</i> (Proposal Defense 8/15/12; Dissertation Defense successfully completed on 3/7/2013) https://etd.ohiolink.edu/ap/10?0::NO:10:P10_ETD_SUBID:2930 . Dissertation Committee Member
2011	Provided Q methodology & Q factor analysis expertise to Lydia Yang for her dissertation at Florida International University - <i>A Q Factor Analysis of College Undergraduate</i>

	<i>Students' Study Behaviors</i> . Available at http://digitalcommons.fiu.edu/cgi/viewcontent.cgi?article=1542&context=etd
2011	Chris Kuhn – McNair Scholar Student Mentor (Summer 2011); Summit College, Computer Information Systems, University of Akron. <i>Investigating Student Views on the Use of Classroom Technology</i> . McNair Research Project Student Sponsor
2010-11	John B. Nicholas – PhD, College of Education, Curricular & Instructional Studies, University of Akron. <i>Investigating Engineering Educators Views On The Use Of Educational Technology: A Q Methodology Study</i> (Dissertation Defense 5/5/11). Dissertation Co-Chair & Methodologist; Comprehensive Exam Committee
2009	Jennifer Stedman – Master Degree Comprehensive Exam Question Writer
2008-present	Claudia Bartley – PhD-candidate, College of Education, Physics, Kent State University. Dissertation Co-Chair & Methodologist
2008	Kathleen Schwartz Crooks – Comprehensive Exam Committee
2007-2008	Jan Naher Snowden – PhD-candidate, College of Education, Curricular & Instructional Studies, University of Akron - <i>Self-Efficacy and Conceptual Understanding of Force and Motion in a Community College Physics Course in Engineering Technology</i> (incomplete). Dissertation Co-Chair
2007-2009	Joseph Jurcyk – PhD-candidate, College of Education, Curricular & Instructional Studies, University of Akron. <i>Q-Sort.com: The Development and Evaluation of a Web-Based Application for Conducting Q Methodology Studies</i> (incomplete). Dissertation Co-Chair

Honors/Awards:

2017	Distinguished Paper Award from the Consortium of State and Regional Educational Research Associations (SRERA) and the American Educational Research Association (AERA)
2016	Eastern Educational Research Association Best Professional Paper Award for <i>Student Views Regarding Offering a Physics Course Online</i> .
2011	Nominated for the University of Akron Conference on Undergraduate and Graduate Student Research's Faculty Mentor of the Year award .
2011	Nominated for Outstanding Teacher Award, Summit College
2011	Recognized by the Department of Physics at Miami University in their alumni spotlight - http://muphysics.org/people/alumni-spotlight/sue-ramlo
2011-14	Elected as Inaugural Advisor for the International Society for the Scientific Study of Subjectivity (3-year term; remain on Executive Board)
2010	Conference host for the International Society for the Scientific Study of Subjectivity
2008-Present	Executive Board, International Society for the Scientific Study of Subjectivity (IAS, Q Methodology) while holding the following positions:

	Vice President 2008-9; President 2009-2010; Conference Host 2010; Past President, 2010-2011; Advisor 2011-present.
2008-2011	Appointed to the Committee on Women in Physics of the American Association of Physics Teachers. This 9-member committee represents all women within the AAPT international membership of approximately 13k.
December 2005	Ohio Magazine, one of the educators in their Excellence in Education feature that includes faculty from across the state of Ohio.
October 2005	Northeast Ohio Council on Higher Education (NOCHE) Award for Teaching Excellence
May 2005	Outstanding Teacher-Scholar , The University of Akron; The Outstanding Teacher-Scholar award requires documented evidence of teaching excellence, as reflected in its impact on student learning and success. In addition, this award requires documented evidence of significant contributions to the scholarship of teaching and learning (e.g., pedagogical research in the discipline).
2005	Named to Who's Who Among America's Teachers (nominated by former physics student) – only 2% of all teachers are nominated for this honor more than once (I am listed in the 2000 edition).
2003	Nominated for Outstanding Faculty member, Department of Engineering and Science Technology
2001	Nominated for Outstanding Faculty, The Community & Technical College at The University of Akron
2000	Received the Outstanding Faculty Award, Department of Engineering and Science Technology
2000	Named to Who's Who Among America's Teachers (nominated by former physics student) – only 5% of all teachers are nominated for this honor.
1998	Inducted into Phi Delta Kappa, professional education honorary

Funded Endowments & Grants:

2018	The University of Akron Institute for Teaching & Learning; <i>Re-envisioning a Software Applications Course</i> . Information Literacy Mini Summer Grant. \$500. Funded.
2016	National Science Foundation; <i>Collaborative Research: Evolutionary tradeoffs between outcross siring success and selfing: The role of ecological context in the stability of mixed mating systems</i> ; Grant number = 1654951; Role = Evaluator; Requested (Akron segment only) \$164,128. Funded.
2013	Lutheran Services for Elderly Endowment, Evangelical Lutheran Church in America Foundation. <i>Meeting the Need – Launching and Mentoring Unexpected Caregiver Support Groups</i> ; Submission by Northfield Retirement Community Foundation; Role = Program Evaluation; Requested \$10,000. Funded.

2013	Burton D. Morgan Foundation - Educational programs - youth level - that are designed to build competencies in entrepreneurship, free enterprise, or innovation; Submission for Akron Public Schools; Role = Originator / Lead for Letter of Intent, Team Member; Letter of Inquiry led to invitation to submit a full proposal. Requested \$50,000; Funded .
2012-2015	Ohio Board of Regents, Secondary Career-Technical Alignment Initiative (Science Pathway), Lead Expert; \$10,150. Funded . Renewal for additional \$2450 - Funded .
2011	Mardag Foundation; <i>Meeting the Need-Launching and Mentoring Family Caregiver Support Groups</i> ; Role = Evaluator; Requested \$35,000; Funded .
2011	Friends of the University Library Grants for Library Collections; Grant proposal submitted for acquiring print and electronic resources for Q methodology research. \$500. Funded .
2009-10	Evangelical Lutheran Church of America, Elderly Endowment. Proposal via Northfield Retirement Community; Role = Evaluation Consultant; Requested \$20,000 M; Funded .
2007-8	Northeast Ohio Learning Network grant; reVisioning a technical writing course for STEM (Science, Technology, Engineering, and Mathematics); Primary Investigator / Convener. \$10,000. Funded .
2007	(CT) ² : Critical Thinking for Civic Thinking in Science project – a small grant program for UA faculty who are interested in assessing critical and civic thinking. This project is funded by a larger grant through the National Science Foundation to investigate thinking skills in the natural sciences. PI for mini grant; \$1,000. Funded .
2006-9	One of a five-member team that submitted a proposal for the 2006 CASTL (Carnegie Academy for the Scholarship of Teaching and Learning) Leadership Program which involves The University of Akron serving as a Cluster Leader for undergraduate research. No monetary funds are associated with this award. Awarded .
2006	Evaluation consultant – data entry, evaluation, and interpretation of Q methodology study, part of the assessment of the <i>Teaching Bioinformatics through Collaboration and Inquiry</i> ; NSF CCLI grant (\$87,000 funded).
2005-7	The University of Akron Pedagogy Research Team 2; Leader / PI; Received \$3,000 fall 2005. Additional \$600 summer 2006. \$3,470 2006-7. Funded .
2005-6	American Association of Physics Teachers - \$500 to provide a workshop at the Ohio Section meeting related to teacher preparation and Ohio science standards. PI. Funded .
2004-5	Critical Thinking research grant, Institute for Teaching & Learning, The University of Akron - \$2,000. PI. Funded .
2000	Teaching Academy Grant 2000, University of Akron, for improving teaching & learning within the Engineering & Science Technology Department. Received \$3,459 in non-compensatory funds for providing professional development opportunities during Fall 2000. PI. Funded .

Unfunded Proposals for Fellowships, Endowments, & Grants:

2018	The University of Akron, Faculty Research Committee 2017-18 Summer Fellowship. <i>An investigation of stakeholders' views of speech on university campuses using Q methodology</i> . Role = PI. Requested \$10,000. <i>Not funded</i> .
2013	Ohio Department of Education Straight A Fund. <i>Reinvesting Energy Savings into 6th-12th Classrooms</i> ; Submission through Western Reserve Local School District; Role = Team member / participant / STEM Education Expert / Professional Development Provider; Requested \$1,387,767; Passed stage 1 . <i>Not funded</i> .
2012	National Science Foundation, Innovative Technology Experiences for Students and Teachers (ITEST); <i>Progressive Experiences to Enhance K-12 STEM-Education (PEEKS)</i> ; Role = PI; Requested \$ 949,501; <i>Not funded</i> ² .
2012	Achieving Distinction (The University of Akron); <i>STEM Without Borders: Setting the Framework for Enhancing STEM-Education at The University of Akron</i> ; Role = PI; Requested \$150k and a staff position; <i>Not funded</i> .
2012	AAPT/PTRA Summer Institute PER Evaluator, US - Solo Physics Education Researchers Scholar in Residence Grant; Role = PER (Physics Education Research) Evaluator; PI = Steve Maier, Northwestern Oklahoma State University; Requested \$1900; <i>Not funded</i> .
2011	Ohio Board of Regents Improving Teacher Quality (ITQ); <i>New Directions in Physical Science: A Hybrid Model for Learning</i> ; Role = Project Director; Requested \$121,539.55; <i>Not funded</i> .
2011	National Science Foundation, Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM); <i>Need- Based Scholarships for Academically-Talented Students in Engineering Technology Programs</i> ; Role = Co-PI (assessment); Requested \$570,400; <i>Not funded</i> .
2011	National Science Foundation, Centers for Chemical Innovation Phase I (CCI-I); <i>Chemistry of Self-Assembled Macromolecular Structures</i> ; Proposal via UA Polymer College & Coleen Pugh; Role = Contributor – education outreach; Requested \$1,500,000; <i>Not funded</i> .
2010	National Science Foundation, Centers for Chemical Innovation Phase I (CCI-I); <i>Chemistry of Self-Assembled Macromolecular Structures</i> ; Proposal via UA Polymer College & Coleen Pugh; Role = Senior Personnel; Requested \$1,500,000; <i>Not funded</i> .
2010	Learn and Serve America Higher Education program; <i>Institutionalizing service-learning in STEM disciplines</i> ; Proposal via UA's Institute for Teaching and Learning; Role = Senior Personnel; Requested \$500k; <i>Not funded</i> .
2009	National Science Foundation, Informal Science Education-Broad Implementation proposal. <i>PEARLS of WISTEM: Performance-based education of aviation and real-life stories of women in STEM</i> ; Proposal via Dr. Greg DiLisi at John Carroll University. In process. Role = Lead co-PI; Requested \$2M; <i>Not funded</i> .

² Currently the funding rate at NSF is about 20% across the different directorates and programs. The funding rate has dropped in recent years due to increases in submissions and federal budget troubles.

2009	Thrivent Financial for Lutherans Foundation; <i>Re-Connecting Caregivers, Congregations and Community: A Sustainable Model for Lutheran Families</i> . Role = Evaluation Consultant; Requested \$371,000; <i>Not funded</i> .
2008	Weinberg grant - Family and Informal Caregiver Support Program; <i>NRC Caregiver Network</i> ; Role = Evaluation Consultant; Requested \$1.4 M; <i>Not funded</i> .
2008	National Science Foundation: Course, Curriculum, and Laboratory Improvement; <i>Improving the learning of force and motion concepts: An investigation of differences in undergraduates' views of learning and their learning of force and motion concepts</i> . Submitted May 20, 2008; Principal Investigator (PI); Requested \$147,390. <i>Not funded</i> .
2007	Ohio Board of Regents, Improving Teacher Quality grant; <i>Inquiry based lessons and conceptests in physical science</i> . Submitted November 1, 2007; co-PI; Requested \$92,893. <i>Not funded</i> .
2007	NSF Informal Science grant; <i>Akron Knows Science!</i> Collaborative effort among faculty from the colleges of Fine and Applied Arts, Arts and Sciences, & Summit College; pre-proposal submitted. \$3M proposal. <i>Not funded</i> .
2006	Ohio Board of Regents, Improving Teacher Quality grant; Conceptests in the Classroom: Formative Assessment of Student Learning in Science. Submitted November 1, 2006; Project Director; Requested \$230,998. <i>Not funded</i> .
2006	NSF Advanced Technology Education grant; Summit College ATE Academy in Engineering Technology; co-PI; proposal submitted October 2006. \$894,043 requested. <i>Not funded</i> .
2005-6	National Science, Technology, Engineering, and Mathematics Education Digital Library; NSF project related to the development of Learning Objects for use in STEM (Science, Technology, Engineering, and Mathematics) courses; in collaboration with Stark State College; Senior Personnel and lead person at The University of Akron for grant. <i>Not funded</i> .
2004	NSF Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP) grant – a collaboration among the UA's College of Arts & Sciences, College of Education, and Summit College. Role of Senior Personnel; Lead person / coordinator for the Summit College grant proposal team. Grant submitted March 2004. \$2,347,355 over 5 years. <i>Not funded</i> .

Professional Affiliations:

2016 – 2017	American Educational Research Association (AERA). Member; Division H - Research, Evaluation, and Assessment in Schools; Mixed Methods
2004 - present	International Society for the Scientific Study of Subjectivity (I4S, Q Methodology) <ul style="list-style-type: none"> ○ Member of the Executive Board (2008-2017) <ul style="list-style-type: none"> ○ Within various roles, assisted in various aspects of I4S including the plan of conferences, selection of conference locations, and provide consultation related to the business of I4S. ○ Inaugural Advisor (2011-2017)

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- Responsible for special recognitions, awards, scholarships, and similar, offered by or on behalf of the Society. Developed the criteria and review process for the Donald J. Brenner Outstanding Paper Award; oversaw this award each year. Initiated the William Stephenson Outstanding Achievement Award as appropriate.
 - Established procedures for effective promotion of scholarship in the field, internationally and through the professional development of members.
 - Assisted in the movement of the Society's journal, *Operant Subjectivity*, from paper to online and toward being indexed.
 - Past-President (2010-2011)
 - Chaired the Archive Committee, collecting information related to the archiving of ISSSS documents
 - President (2009-10)
 - Led the Executive Committee of I4S
 - Worked with the Editor of the I4S journal, *Operant Subjectivity: The International Journal of Q Methodology*, to develop policies regarding reprints of material in the journal
 - Suggested changes to the I4S By Laws that better represented current practice or improved leadership within the society (approved unanimously)
 - Led the 2010 I4S business meeting at the 2010 conference
 - Presented the first Stephenson Award as a life-time achievement award for a Q researcher after developing criteria and the process.
 - Opened a dialogue with the Center for the History of Psychology at The University of Akron in order to work toward preserving the society's history at the center.
 - I4S conference chair & host, 2010
 - Provided planning for the 2010 conference
 - Made conference hotel, food, technology, and room selection and arrangements
 - Recruited keynote speaker for the Friday evening banquet
 - Designed the conference bags & got them printed
 - Developed the entire conference program
 - Vice President & Conference Research Chair, 2008-9
 - Put out the call for proposals for 2009 conference
 - Recruited conference proposal reviewers
 - With help from the Web Master, moved the proposal submission and reviewer systems completely online
 - Oversaw all reviews and made decisions regarding mixed acceptance/rejection results
 - Assembled the accepted proposals into themes for the conference sessions
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2008- 2009 Council for Undergraduate Research

2004 – Eastern Educational Research Association (EERA) – member, contributor, and session
present chair

2002 - 2012	Midwestern Educational Research Association (MWERA) Proposal reviewer & Session Chair (Division H, Evaluation & Assessment)
1994- 2018	Ohio Section of American Association of Physics Teachers (AAPT) – AAPT – Ohio section; <ul style="list-style-type: none"> ○ Past-President (2016-17) ○ President (2015-16) ○ President-Elect (2014-15) ○ Vice President of Four Year Colleges (2008-2014) ○ Past-President (2007-8) ○ President (2006-7) – increased meeting participation, updated By Laws, replaced paper mailings with electronic information/contact ○ Vice President of Two-Year Colleges (2004-6) ○ Board of Directors (2004-2017). ○ www.osaapt.com website administrator / contact (2007-14) ○ Meeting Host / Organizer – Spring 2014 (UA & National Inventors Hall of Fame STEM Middle School); Spring 2007 (The University of Akron).
1994- 2015	American Association of Physics Teachers (AAPT) – International organization for physics teachers. <ul style="list-style-type: none"> ○ 2008-2011 - Committee on Women in Physics ○ 2007-Present - Physics Education Research Topical Group (PERTG)
1998-2015	Phi Delta Kappa, Professional honorary education society – Membership by nomination only.
2002 -2006	Event Supervisor, Akron Regional Science Olympiad
1995-2001	TYC21 (physics faculty at 2 year colleges), temporary national and local organization supported by an NSF grant
1996-8	Ohio Section for Technology in Education
1994-8	Promoting Access in Technical Education Grant Advisory Board, State of Ohio grant, Women’s Center at Lakeland Community College
1990-9	Institute of Electrical and Electronics Engineers (IEEE) & Nuclear Science & Imaging Section of IEEE

Advisory & Editorial boards, Reviewer, Conference Session Chair, Referee & Moderator status:

2018	Reviewer for <i>Methodological Innovations</i> , an international, open access Sage journal and the principal venue for publishing peer-reviewed, social-research methods articles. <i>Methodological Innovations</i> is the forum for methodological advances and debates in social research method and methodology.
2017	Reviewer for <i>International Journal of Intercultural Relations</i> , a bimonthly peer-reviewed Elsevier academic journal covering intercultural relations. It was established in 1977 and is the official journal of the International Academy for Intercultural Research.
2017	Reviewer for <i>Organic Agriculture</i> , a Springer peer reviewed international journal.

2017	Reviewer for <i>Journal of Environmental Planning and Management</i> , a Taylor & Francis peer reviewed international journal.
2017	Reviewer for <i>City & Community</i> , a Wiley peer reviewed international journal.
2016	Reviewer for <i>Quality & Quantity</i> , a Sage peer reviewed international journal of methodology.
2016	Reviewer for <i>Food Security: The Science, Sociology and Economics of Food Production and Access to Food</i> , an international peer reviewed journal.
2014	Article Editor for <i>SAGE Open</i> , a new peer-reviewed open-access publication from SAGE Publications that launched in 2011. Articles span the full spectrum of the social and behavioral sciences and the humanities.
2013	Reviewer for the Trials Journal , an international, open access, peer-reviewed online journal.
2012-present	Reviewer for the <i>Journal of Science Education and Technology</i> (JOST), an international and interdisciplinary Sage journal.
2012-present	Reviewer for <i>Teaching and Teacher Education</i> , an international, multidisciplinary Elsevier journal.
2011-present	Reviewer for <i>Higher Education</i> (an international journal by Springer)
2011-present	Reviewer for <i>Midwestern Educational Researcher</i>
2008-9	Reviewer for the <i>American Journal of Physics</i>
2007-2014	Editorial Board of <i>Human Subjectivity</i> (the English journal for the Korean Society for the Scientific Study of Subjectivity); <i>Journal is no longer being produced</i> . Reviewer since 2007.
2007-present	Reviewer & Conference Session Moderator / Chair for International Society for the Scientific Study of Subjectivity (Q methodology) conferences;
2006-2014	Editorial Board of <i>Operant Subjectivity: The International Journal of Q Methodology</i> ;
2006-present	Reviewer for <i>Operant Subjectivity: The International Journal of Q Methodology</i> ;
2007-2014	Reviewer for the <i>Physics Education Research Conference Proceedings</i> publication.
2007-present	Reviewer for the <i>Journal of Research in Education</i>
2007-2013	Eastern Educational Research Association – Division 2: Measurement, Evaluation, Research, and Statistics – Conference Session Facilitator
2005-2011	Referee for <i>The Physics Teacher</i>
2005 - present	Moderator for the Physics Education section of the www.arXiv.org web site; arXiv is an openly accessible, moderated repository for <i>international</i> scholarly papers in specific scientific disciplines. Material submitted to arXiv is expected to be of interest, relevance, and value to those disciplines. arXiv.org is owned, operated and funded by Cornell

University Libraries and partially funded by the National Science Foundation. I was nominated for this position and accepted by the board. I am the sole moderator for the Physics Education section and therefore moderate all papers submitted for consideration in this section. The list of moderators is available here: <http://arxiv.org/moderators/>

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| 2003 - 2011 | Midwestern Educational Research Association (Division H, Evaluation & Assessment) – Reviewer of conference proposals (2004, 2006); Reviewer for Division B – Curricular & Instructional studies 2012; Conference Session chair (2003, 2006, 2010) |
| 2001 | One of four reviewers of the text <i>Physics for Technology with Applications in Industrial Control Electronics</i> . By Daniel H. Nichols. Published by Prentice Hall (2001-10-27) ISBN 10: 0130266027 / ISBN 13: 9780130266026
http://www.abebooks.com/Physics-Technology-Applications-Industrial-Control-Electronics/11788709930/bd |
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Examples of Service & Leadership to the Department, College, University, and Community:

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| 2015-6 | Working with the Akron Polymer Center Director to reestablish the relationship between that entity and the Department of Engineering & Science Technology. |
| 2015-6 | President of the Ohio Section of the American Association of Physics Teachers |
| 2013 | Chair of the Facilitation Committee formed from voting faculty of Summit College to reinvision our future as a college; Led discussions and facilitated the creation of a white paper related to the Past, Present & Future of the college, including data and analyses. These initial discussions and reports facilitated the eventual name change of the college (College of Applied Sciences and Technology), revised mission statement, and the college's reorganization. |
| 2012- 2015 | The Speed-to-Market Accelerator (STMA) Academic Committee - served as a representative of the University of Akron; STMA is a collaborative program led by NorTech, JumpStart, Lorain County Community College, and MAGNET to accelerate the speed-to-market for high potential products in Northeast Ohio's advanced energy and flexible electronics industry clusters. |
| 2012-2013 | Selected as a Lead Expert for CTAGs (Career-Technical Assurance Guide) by the Ohio Board of Regents (OBR) to perform research and create / align CTAGs for the Science Pathway based on the Ohio Department of Education's Career Field Technical Content Standards for Engineering and Science. Created deliverables on a tight schedule for OBR that included CTANs, CTAGs, alignment documents, and Panel Reviews. The Science pathway primarily focused on Alternative Energy with final CTAGs for Alternative Energy, Safety, Solar Voltaics, and Electrical Engineering Technology (DC circuits). |
| 2011-2014 | Innovation Alliance (IA; www.innovation-alliance.org); Active member representing The University of Akron on the STEM Education and Career Pathways initiative committee: <ul style="list-style-type: none"> • IA is the UA partnership with Lorain County Community College and Stark State • IA was the 2012 Team NEO Economic Development Plus Award for Regionalism and Cross-Border Collaboration. |
| 2011-present | Executive Committee STEM High School / National Inventors' Hall of Fame School: Center for STEM Learning / Akron Hub of the Ohio STEM Learning Network (OSLN); |
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represent The University of Akron within this partnership with Akron Public Schools, the City of Akron, the Greater Akron Chamber, and Invent Now (Formerly the National Inventors' Hall of Fame). Oversight of the development of the Akron STEM High School, Operations of the NIHF STEM middle school & Akron Hub, Contracts / MOUs.

2011-12 Chair of Department Chair Review Committee; Department of Engineering & Science Technology

Appearance in periodicals / media from interviews based upon my expertise

Sanfilippo, Marisa (July 26, 2017). Report: Active Learning Best for Higher-Level STEM Instruction. *GoodCall National*. <https://www.goodcall.com/news/active-learning-011467>.

Staff. (July, 2016). Ramlo earns national honor for paper. *Hudson Hub*. Available at <http://www.hudsonhubtimes.com/education/2016/07/06/ramlo-earns-national-honor-for-paper>

Tate, Emily (February, 2016). Firm, contract impede transparent presidential search. *Miami Student*. Available at <http://miamistudent.net/?p=17014979>.

Peha, Steve (July, 2015). New ideas for using Project-Based Learning in the K–12 classroom. *Staples.com*. <http://www.staples.com/sbd/cre/education/high-school/new-ideas-for-using-project-based-learning-in-the-k-12-classroom.html>.

Tanksalvala, Sarah (March 11, 2015). Getting published: Tips from the experts. *Endnote.com*. <http://endnote.com/blog/getting-published-tips-experts>.

Bernardo, Richie (January 14, 2015). 2015's Best and Worst Metro Areas for STEM Professionals. *WalletHub.com*. <http://wallethub.com/edu/best-worst-metro-areas-for-stem-professionals/9200/#>.

Rascon, Yesenia. (August 7, 2014). Top 5 Reasons to Apply to a Research University. *Nerd Scholar*. <http://www.nerdwallet.com/blog/nerdscholar/2014/nerdscholar-job-search-guide/> (redistributed on June 29, 2015 at <http://megeeducation.com/2015/06/29/research-universities-and-five-reasons-for-applying-to-them/>).

Sen-Gupta, Gianna. (June 3, 2014). NerdScholar's Job Search Guide for Gen Y. *Nerd Scholar*. <http://www.nerdwallet.com/blog/nerdscholar/2014/nerdscholar-job-search-guide/>

Sen-Gupta, Gianna. (March 5, 2014). Expert Advice: How to Network over Spring Break. *Nerd Scholar*. <http://www.nerdwallet.com/blog/nerdscholar/2014/expert-advice-network-spring-break/> (redistributed on March 10, 2015 as Expert Advice: 6 Tips for Networking over Spring Break. http://mynextbank.com/Articles/expert_advice_6_tips_for_networking_over_spring_break.aspx).

Hosler, Aimee. (December 4, 2013). Budget Cuts Cause Some Colleges to Cut Key Academic Programs. *CityTownInfo.com*. <http://www.citytowninfo.com/career-and-education-news/articles/budget-cuts-cause-some-colleges-to-cut-key-academic-programs-13120401>.

Barnard, Brendan. (July 10, 2013). Texas High School Takes New. *RobotsLab – Robots for Education* Approach to Learning. <http://content.robotslab.com/blog/texas-high-school-takes-new-approach-to-learning#gsc.tab=0>.

Sheehy, Kelsey. (June 25, 2013). Tips for Transitioning to Project-Based Learning. *US News & World Report*. <http://www.usnews.com/education/blogs/high-school-notes/2013/06/24/tips-for-transitioning-to-project-based-learning> (and redistributed by Yahoo News - <http://news.yahoo.com/tips-transitioning-project-based-learning-140740552.html> & Current News Today - <http://currentnewstoday.net/tips-for-transitioning-to-project-based-learning/>).

Pereyra, Laura. (June 25, 2013). How to Leverage the Hidden STEM Economy. *Nerd Scholar*. <http://www.nerdwallet.com/blog/nerdscholar/2013/leverage-hidden-stem-economy/>

- Sheehy, Kelsey. (June 24, 2013). How to make project-based learning work. *Smart Brief*. <http://www.smartbrief.com/06/24/13/how-make-project-based-learning-work-0#UtaHG55dW5I>. (and redistributed by Columbia Heights Public Schools - <http://columbiaheightsteachers.blogspot.com/2013/07/how-to-make-project-based-learning-work.html> & Career Ready Kansas - <http://crk.ksde.org/Information/tabid/62/BlogDate/2013-06-30/DateType/month/Default.aspx>) .
- Pereyra, Laura. (June 18, 2013). 5 Tips from Professors: Advice to Increase Diversity in STEM fields. *Nerd Scholar*. <http://www.nerdwallet.com/blog/nerdscholar/2013/diversity-in-stem-fields/> (redistributed here <http://latinalista.com/2013/06/5-tips-from-professors-advice-to-increase-diversity-in-stem-fields>).
- McGraw, Tim. (April 8, 2013). Colleges want tech programs computing with more students. *Crain's Cleveland Business*. <http://www.crainscleveland.com/article/20130408/SUB1/304089983/1048/toc?#>. (redistributed as <http://www.kent.edu/cs/news/colleges-want-tech-programs-computing-more-students>).
- McGraw, Tim. (February 25, 2013). Recruitment efforts are at root of STEM programs. *Crain's Cleveland Business*. <http://www.crainscleveland.com/article/20130225/SUB1/302259997/1076/TOC?Profile=1076>

Invited Book Chapters:

- Ramlo, S. (in process / 2020). Q Methodology. In A. Onwuegbuzie & J. Hitchcock (Eds.), *The Routledge Handbook for Advancing Integration in Mixed Methods Research* (pp xxx-xxx). London: Routledge.
- Ramlo, S. (in process / 2019). Q Methodology as Mixed Analysis. In A. Onwuegbuzie & B. Johnson (Eds.), *Reviewer's Guide for Mixed Methods Research Analysis* (pp xxx-xxx). London: Routledge.
- Newman, I. & Ramlo, S. (2010). Using Q Methodology and Q Factor Analysis in Mixed Methods Research. In A. Tashakkori, & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research* (Second ed., pp. 505-530). Thousand Oaks, Calif.: Sage.

Professional Refereed Publications:

- Ramlo, S. (2018 / in press). The preferences of Q methodologists at the factor-analytic stage: An examination of practice. *Research in Science & Technological Education*, xx (x), pp xxx-xxx.
- Ramlo, S. (2017). Student views regarding online freshmen physics courses. *Research in Science & Technological Education*, 35 (4), pp 461-476. DOI: 10.1080/02635143.2017.1353961. Available at <http://www.tandfonline.com/eprint/aqz6ZtS5FcxwjU4Jq6uX/full>.
- Ramlo, S. (2017). Improving student evaluation of teaching: Determining multiple perspectives within a course for future math educators. *Journal of Research in Education*, 27(1), pp 49-78. Available online at <https://www.eeraorganization.org/jre-spring-2017>.
- DeChambeau, A. & Ramlo, S. (2017). STEM high school teachers' views of implementing PBL: An investigation using anecdote circles. *Interdisciplinary Journal of Problem-based Learning*, 11(1). DOI 10.7771/1541-5015.1566. Available online at <http://docs.lib.purdue.edu/ijpbl/vol11/iss1/7/>.
- Gingerich, A., Ramlo, S., van der Vleuten, C.P.M., Eva, K. W., & Regehr, G. (2017). Inter-rater variability as mutual disagreement: Identifying raters' divergent points of view. *Advances in Health Sciences Education*, 22, pp 819-838. DOI:10.1007/s10459-016-9711-8. Available as view only at <http://rdcu.be/ks51>.
- Ramlo, S. (2016). Centroid and theoretical rotation: Justification for their use in Q Methodology research. *Midwestern Researcher*, 28(1), 73-92. Available at <http://www.mwera.org/MWER/volumes/v28/issue1/v28n1-Ramlo-SPECIALIZED-RESEARCH-STATISTICAL-METHODS.pdf>

- Ramlo, S. (2016). Students' views about potentially offering physics courses online. *Journal of Science Education and Technology*, 25(3), pp 489-496. DOI: 10.1007/s10956-016-9608-6. Available online at <http://link.springer.com/article/10.1007/s10956-016-9608-6>.
- Ramlo, S. (2016). Mixed method lessons learned from 80 years of Q methodology. *Journal of Mixed Methods Research*, 10, pp 28-45. Available at <http://mmr.sagepub.com/content/10/1/28.full.pdf+html>. DOI: 10.1177/1558689815610998
- Ramlo, S. (2015). Theoretical significance in Q Methodology: A qualitative approach to a mixed method. *Research in the Schools*, 22(1), pp 68-81.
- Ramlo, S. (2015). Student views about a flipped physics course: A tool for program evaluation and improvement. *Research in the Schools*, 22(1), pp 44-54.
- Ramlo, S. (2015). Q methodology as a tool for program assessment. *Mid-Western Educational Researcher*, 27(2), pp 207-223. Available at <http://www.mwera.org/MWER/volumes/v27/issue3/v27n3-Ramlo-FEATURE-ARTICLE.pdf>.
- Richardson, L., Fister, C., & Ramlo, S. (2015). Effect of an exercise and weight control curriculum: Views of obesity among exercise science students. *Advances in Physiology Education*, 39 (2), pp. 43-48. Available at <http://advan.physiology.org/content/39/2/43>. DOI: 10.1152/advan.00154.2014
- Cerrone, K., Nicholas, J. & Ramlo, S. (2013). Perspectives contributing to early college high school student persistence. *Operant Subjectivity: The International Journal for Q Methodology*, 36 (4), pp 342-352. DOI:10.15133/j.os.2012.019
- Ramlo, Susan & Berit, Kari. (2013). Using Q methodology to study wellbeing associated with informal caregiving. *Human Subjectivity*, 11(1), pp 157-174. Available at <http://www.dbpia.co.kr/Journal/ArticleDetail/3208743>.
- Ramlo, Susan & Berit, Kari. (2013). Determining the various perspectives of caregivers of aging adults with Q methodology. *The Family Journal*, 21(1), pp 35-44. DOI: 10.1177/1066480712456819. Available at <http://tfj.sagepub.com/content/21/1/46.abstract>.
- Ramlo, S. (2012). Inservice science teachers' views of a professional development workshop and their learning of force and motion concepts. *Teaching and Teacher Education*, 28(7), pp 928-935. DOI: 10.1016/j.tate.2012.04.002.
- Ramlo, S. (2012). Determining faculty and student views: Applications of Q Methodology in higher education. *Journal of Research in Education*, 22(1), pp 86-106. Available at http://www.eeraonline.org/journal/files/v22/JRE_v22n1_Article_5_Ramlo.pdf
- Ramlo, S. (2011). Using word clouds to present Q Methodology data and findings. *Human Subjectivity*, 9(2), pp 99-111. Available at <http://www.dbpia.co.kr/Journal/ArticleDetail/1633388>.
- Ramlo, S. & Newman, I. (2011). Reply to Gourlay regarding Q Methodology and Its Position in the Mixed Methods Continuum. *Operant Subjectivity: The International Journal for Q Methodology*, 34 (3), pp 213-214.
- Ramlo, S. & Newman, I. (2011). Reply to Stenner regarding 'Q Methodology and its position in the mixed methods continuum.' *Operant Subjectivity: The International Journal for Q Methodology*, 34 (3), pp 205-208. DOI:10.15133/j.os.2010.011
- Ramlo, S. & Newman, I. (2011). Q methodology and its position in the mixed methods continuum. *Operant Subjectivity: The International Journal for Q Methodology*, 34 (3), pp 173-192. DOI:10.15133/j.os.2010.009
- Ramlo, S. (2011). A Note on the Don Brenner Outstanding Paper Award. *Operant Subjectivity: The International Journal for Q Methodology*, 34 (2), pp 100-101. DOI:10.15133/j.os.2010.02
- Ramlo, S. (2011). Facilitating a faculty learning community: Determining consensus using Q Methodology. *Mid-Western Educational Researcher* 24(1), pp 30-38.

- Ramlo, S. & Newman, I. (2010). Classifying individuals using Q Methodology and Q factor analysis: Applications of two mixed methodologies for program evaluation. *Journal of Research in Education*, 21(2), pp 20-31. (available online at http://www.eeraonline.org/journal/files/v20/JRE_v20n2_Article_3_Ramlo_and_Newman.pdf).
- Ramlo, S. & Nicholas, J. (2010). In-service science teachers' views about learning physics after a one week workshop. *Human Subjectivity*, 1, pp 109-120.
- Ramlo, S. (2008). Student perspectives on learning physics and their relationship with learning force and motion concepts: A study using Q methodology. *Human Subjectivity*, 2, pp 73-90.
- Ramlo, S. (2008). Determining the various perspectives and consensus within a classroom using Q Methodology. *Physics Education Research Conference Proceedings*, 1064(1), pp 179-182. DOI: 10.1063/1.3021248. Available at <http://www.per-central.org/items/detail.cfm?ID=8111> & <http://www.compadre.org/per/items/detail.cfm?ID=8111> & <http://nsdl.org/resource/2200/20090204193723727T>).
- Ramlo, S. (2008). Validity and reliability of the Force and Motion Conceptual Evaluation. *The American Journal of Physics*, 76 (9), pp. 882-886. DOI: 10.1119/1.2952440. (<http://scitation.aip.org/content/aapt/journal/ajp/76/9/10.1119/1.2952440>).
- Ramlo, S., McConnell, D., Duan, Z., & Moore, F. (2008). Evaluating an inquiry-based bioinformatics course using Q methodology. *Journal of Science Education and Technology*, 17(3), 219-225. available online at <http://www.springerlink.com/content/n0tq77wjg013402v/>. DOI: 10.1007/s10956-008-9090-x.
- Ramlo, S. & McConnell, D. (2008). Perspectives of university faculty regarding faculty reading circles: A study using Q methodology. *The Journal of Faculty Development*. 22 (1), pp 25-32.
- Ramlo, S. (2006 / 2007). Student views of learning in an introductory college physics course: A study using Q methodology. *Operant Subjectivity*, 30 (1/2), pp 52-63.
- Ramlo, S. (2006). A physicist's reflection on Q methodology, quantum mechanics & Stephenson. *Operant Subjectivity*, 29 (2), pp 81-86.
- Ramlo, S. (2007). arXiv.org and physics education. *The Physics Teacher*. 45, pp 405-6. DOI: 10.1119/1.2768698.
- Ramlo, S. (2007). Physics lab renovation 101. *The Physics Teacher*, 45, 213-216. DOI: 10.1119/1.2715420.
- Ramlo, S. (2006, March). Jeff and the raccoon. *The Physics Teacher*, 44, 160-1. DOI: 10.1119/1.2173323.
- Ramlo, S. (2005). An application of Q Methodology: Determining college faculty perspectives and consensus regarding the creation of a school of technology. *Journal of Research in Education*, 15 (1), 52-69.
- Ramlo, S. (November, 1999). Find the Neutrino! Book review of "The Elusive Neutrino: A subatomic detective story". *The Physics Teacher*, 37, 503.
- Utts, B. K., Spagno, S. E. (1989). Investigation of the scintillation characteristics of CsI(Pure). *Institute of Electrical & Electronics Engineers (IEEE), Nuclear Science Symposium*, 37 (2), 134 – 138.

Non-refereed Professional Publications:

- Ramlo, S. (November 2008). NOVEMBER'S FEATURE CORNER: Improving Technical Report Writing: Professional Skills. *Learning Links*, 2. 1-2.
- Ramlo, S. (June 16, 2008). Re: measure of gain. PhysLrnR archives at <http://bit.ly/nzTjTQ> & redistributed at <http://www.physics.indiana.edu/~hake/ImpactCI-D-pp.1-103.pdf>.

- Ramlo, S. (June 11, 2008). Re: measure of gain. PhysLrnR archives at <http://bit.ly/oS8joC> & redistributed at <http://www.physics.indiana.edu/~hake/ImpactCI-D-pp.1-103.pdf>.
- Ramlo, S. (2007). *Measuring voltage and current in a DC circuit* (Interactive Lecture activity shared between comPADRE.org and Science Education Resource Center (SERC)). Available at <http://serc.carleton.edu/sp/compadre/interactive/examples/19095.html>.
- Ramlo, S. (2007). *Motion Concepts: Displacement, Velocity, & Acceleration Graphs* (Interactive Lecture activity shared between comPADRE.org and Science Education Resource Center (SERC)). Available at <http://serc.carleton.edu/sp/compadre/interactive/examples/19352.html>.
- Ramlo, S. (2006, November). New Einsteins need positive environment, independent spirit, Letter to the Editor. *Physics Today*. 59 (11), pp. 10-14. (available for free at <http://scitation.aip.org/content/aip/magazine/physicstoday/article/59/11/10.1063/1.2435630>). DOI:10.1063/1.2435630
- Ramlo, S. (2006, January). Competition doesn't work for McDonald's: Why do people think it will work for schools?. Paper published at SusanOhanian.org available at http://www.susanohanian.org/show_nclb_stories.html?id=277 (redistributed at <http://www.zmetro.com/schools/archives/2006/01/> and <http://www.schoolinfosystem.org/2006/01/>).
- Ramlo, S. (2003). *The force and motion conceptual evaluation*. ERIC database report number ED471542. Available at <http://files.eric.ed.gov/fulltext/ED471542.pdf>.
- Ramlo, S. (1995). Profile on Percy Julian. *Technology and Invention in Elementary Schools*. A pamphlet created for The Inventor's Hall of Fame.

Invited Presentations & Workshops, Including Professional Development:

- Rhoades, James & Ramlo, Susan (2018, October). *Intro to Q workshop*. International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Charlotte, NC.
- Ramlo, Susan (2017). *Student views regarding offering a physics course online*. The Consortium of State and Regional Educational Research Associations **Distinguished Paper Session** presented at the American Education Research Association, San Antonio, TX.
- Ramlo, Susan (September, 2016). *Q Methodology as a tool for program evaluation*. Workshop at the Ohio Program Evaluation Group Fall Workshop, Cleveland, OH.
- Rhoades, James & Ramlo, Susan (2016, September). *Intro to Q workshop*. International Society for the Scientific Study of Subjectivity / Q Methodology Conference, New Orleans, LA.
- Ramlo, Susan (2016). *Student views of flipped physics classrooms & online physics*. Department of Physics Seminar, The University of Akron, Akron, OH.
- Ramlo, Susan & Johanyak, Michael (2015, April). *A flipped classroom discussion*. Institute for Teaching and Learning, The University of Akron, Akron, OH.
- Ramlo, Susan (2015, January). *The why & how I flipped for physics...* Student Success Steering Team & Retention Champions, The University of Akron, Akron, OH.
- Ramlo, Susan (2014, November). *Issues of gender & race in standardized student evaluation of teaching: What are the alternatives?*. Rethinking Gender Series / Institute for Teaching and Learning, The University of Akron, Akron, OH. Available here: <https://www.youtube.com/watch?v=LUnxmCaRaUk>
- Ramlo, Susan (2014, October). *Creating & using video physics lessons*. Ohio Section of the American Association of Physics Teachers. University School. Gates Mills, OH.
- Ramlo, Susan & Savery, John (2013, October). *Flipping your classroom: Lessons from the front lines*. Institute for Teaching and Learning, The University of Akron, Akron, OH. Video available at <http://coursecast.uakron.edu/Panopto/Pages/Viewer/Default.aspx?id=51d11315-3573-477e-84f0-b5e72c920006>.

- Ramlo, Susan (2013, March). *Flipping the physics classroom*. Ohio Section of the American Association of Physics Teachers, Lakeland Community College, Kirtland, OH.
- Ramlo, Susan (2012, December). *STEM & PBL professional development & needs assessment*. National Inventors' Hall of Fame© STEM High School, Akron, OH.
- Ramlo, Susan (2012, September). *Intro to Q Workshop*. International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Pittsburgh, PA. Recording available online at <http://qmethod.org/qconference/current/workshopvideo>.
- Ramlo, Susan (2012, March). *Introduction to using Q-Methodology in research*. Guest presenter at the Biology Department's Ecolunch Seminar Series, The University of Akron, Akron, OH.
- Ramlo, Susan (2011, October). *STEM education and Q-Methodology*. Guest Lecture for Professional Seminar in Doctoral Studies (EDCI 5500: 780:801), The University of Akron, Akron, OH.
- Ramlo, Susan (2009, December). *Q Methodology: My story with applications in higher education*. Part 1 of Guest Lecture for Steven Brown's Graduate Seminar on Q Methodology, Kent State University, Kent, OH.
- Ramlo, Susan (2009, December). *Q Methodology as a mixed methodology*. Part 2 of Guest Lecture for Steven Brown's Graduate Seminar on Q Methodology, Kent State University, Kent, OH.
- Ramlo, Susan (2009, November). *A journey into Q Methodology: Applications in higher education*. Keynote address at the Norwegian Q Conference, Stavanger Norway.
- Ramlo, Susan (2009, November). *Q Methodology and mixed methods research*. Keynote address at the Norwegian Q Conference, Stavanger Norway.
- Ramlo, S. E. et al. (2009, January). Invited participant for a panel discussion at the Northeast Regional Ohio Learning Network's Winter Learning Institute, Kent State University, Kent, Ohio.
- Ramlo, S. (2008, November). *The role of student characteristics in the learning of force & motion concepts*. Invited colloquium, Department of Physics, Kent State University, Kent, OH. (Abstract available at <http://phys.kent.edu/~colloquium/abstract/ramlo.pdf>).
- Ramlo, S. (2008, October). *Action research: Using assessment to improve teaching and learning in your classroom*. Invited workshop, Ohio Section of the American Association of Physics Teachers, Lorain County Community College, Elyria, OH.
- Ramlo, S., & Jurczyk, J. (2008, October). *Determining perspectives and consensus using a mixed methodology: An introduction to Q Methodology*. Invited workshop presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Hamilton, ON.
- Ramlo, S. (2008, September). *Investigating student characteristics & their role in learning force & motion concepts*. Invited colloquium, Department of Physics, Cleveland State University, Cleveland, OH. (<http://www.csuohio.edu/sciences/dept/physics/physicsweb/phycolloquium.htm>).
- Ramlo, S. (2008, March). *Physics Education Research: Where do I start?*. Invited workshop (two 1-hour sessions) at the joint meeting of the Ohio Section of the American Association of Physics Teachers, Western Pennsylvania Section of the American Association of Physics Teachers, and Ohio Section of the American Physical Society, Youngstown State University, Youngstown, OH.
- Ramlo, S. (2006, October). *Bringing active learning into your classroom*. Two invited workshop sessions at the fall meeting of the Ohio Section of the American Association of Physics Teachers, Kent State University, Kent, OH.
- Ramlo, S. (2006, March). *Workshop & dialogue on physics teacher preparation*. Invited workshop at the spring meeting of the Ohio Section of the American Association of Physics Teachers, Hathaway Brown School, University Heights, OH.

Peer reviewed professional presentations (conference papers, posters, panel discussions, workshops, & round tables:

- Ramlo, Susan (2018). *Investigating stakeholders' views of free speech on campus using Q methodology*. Paper presented at the American Association of University Professors annual conference, Arlington, VA. Available at https://www.academia.edu/36850089/Investigating_stakeholders_views_of_free_speech_on_campus_using_Q_methodology.
- Ramlo, Susan (2018). *Using Q to study the paradigms within the Q Methodology Community*. Paper presented at the Eastern Education Research Association, Clearwater, FL.
- Juvancic-Heltzel, Judith, Richardson, Laura, & Ramlo, Susan (2017). *Experiential learning: Student views after working with older adults in an exercise science program*. Paper presented at the Midwestern Educational Research Association conference, Chicago, IL.
- Ramlo, Susan (2017). *Divergent perspectives about the factor analytic stage of Q Methodology*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Glasgow, Scotland.
- Richardson, Laura, Ramlo, Susan, & Juvancic-Heltzel, Judith (2017). *Generating a concourse using anecdote circles*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Glasgow, Scotland.
- Ramlo, Susan (2017). *Divergent viewpoints: Q Methodologists' preferences at the factor analytic stage*. Paper presented at the Eastern Education Research Association, Richmond, VA.
- Ramlo, Susan. (2016). *Q Methodologists' preferences at the factor analytic stage*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, New Orleans, LA.
- Ramlo, Susan (2016). *How students feel about offering physics classes online*. Ohio Section of the American Association of Physics Teachers, Baldwin Wallace University, Berea, OH.
- Ramlo, Susan (2016). *Student views regarding offering a physics course online*. Paper presented at the Eastern Education Research Association, Hilton Head, SC.
- Ramlo, Susan (2015). *Giving students choices in a flipped physics classroom*. Ohio Section of the American Association of Physics Teachers, Cleveland State University, Cleveland, OH.
- Ramlo, Susan (2015). *Lessons learned from 80 years of Q methodology*. Paper presented at the Eastern Education Research Association, Sarasota, FL.
- Ramlo, Susan (facilitator), Charles Mauldin, Bruce McKeown, Diane Montgomery, Stephen Jeffares, James Rhoads, Dan Thomas. (2014). *Panel of Experts: Q list-serve goes LIVE 2014*. Panel presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Salt Lake City, UT.
- Popovich, Mark, Susan Ramlo, Stephen Jeffares, Dennis Kinsey, & James Rhodes. (2014). *Teachers talking Q teaching tips*. Panel presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Salt Lake City, UT.
- Ramlo, Susan. (2014). *Evaluating three flipped physics classrooms: Refining an ongoing Q Study*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Salt Lake City, UT.
- Ramlo, Susan. (2014). *Improving the efficiency of executing a Q study with Microsoft Excel: From Concourse Development to Publication-ready Tables*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Salt Lake City, UT.
- Ramlo, Susan (2014). *Putting theory into practice: Describing and evaluating flipped physics classrooms*. Paper presented at the Eastern Education Research Association, Jacksonville, FL.

- Ramlo, Susan (facilitator), Stephen Jeffares, Diane Montgomery, Ron Peck, James Rhodes, Dan Thomas, Amanda Wolf (2013). *Panel of Experts: Q list-serve goes LIVE – Round 4*. Panel presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Amsterdam, Netherlands.
- Ramlo, Susan (2013). *Centroid extraction and theoretical rotation in Q*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Amsterdam, Netherlands.
- Richardson, L.A., Fister, C., Ramlo, S.E., & Juvancic-Heltzel, J.A. (May 2013) *Views of obesity: Investigating the effect of an exercise and weight control curriculum*. Paper presentation at the American College of Sports Medicine Annual Conference, Indianapolis, IN.
- Ramlo, Susan (2013). *Factor extraction & rotation in Q Methodology: An exploration*. Paper presented at the Eastern Education Research Association, Sarasota, FL.
- Onwuegbuzie, Anthony, Newman, Isadore, Dickinson, Wendy, Ramlo, Susan, Tharp Byers, Valerie & Smith, Rachel (2013). *A call for mixed researchers to move towards the radical middle*. Panel presented at the Eastern Education Research Association, Sarasota, FL.
- Fister, C.L., Richardson, L.A., & Ramlo, S.E. (2013) *Examining clinical education experiences of athletic training students using Q Methodology*. Poster presented at the Athletic Training Educators' Conference, Dallas, TX.
- Ramlo, Susan (facilitator), Diane Montgomery, Mark Popovich, James Rhodes, Dan Thomas (2012). *Panel of Experts: Q list-serve goes LIVE – Round 3*. Panel presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Pittsburgh, PA.
- Richardson, Laura, Fister, Carrie, & Ramlo, Susan (2012). *Views of obesity among exercise science students: Investigating the effect of an exercise and weight control curriculum*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Pittsburgh, PA.
- Fister, Carrie, Richardson, Laura, & Ramlo, Susan (2012). *Examining clinical education experiences of athletic training students*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Pittsburgh, PA.
- Cerrone, Katie, Nicholas, John B. & Ramlo, Susan (2012). *Factors contributing to early college high school student persistence*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Pittsburgh, PA.
- Nicholas, John B., Ramlo, Susan & Kuhn, Chris (2012). *Student views on the use of technology in Computer Information Systems (CIS) courses*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Pittsburgh, PA.
- Ramlo, Susan & Nicholas, John B. (2012). *Determining university perspectives and consensus regarding the creation of a STEM Academy*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Pittsburgh, PA.
- Ramlo, Susan (2012). *Determining multiple perspectives within student evaluations of teaching*. Paper presented at the Eastern Educational Research Association Conference, Hilton Head, SC.
- Ramlo, Susan (facilitator), Diane Montgomery, Ronald L. Peck, Mark Popovich, James Rhodes, Dan Thomas (2011). *Panel of Experts: Q list-serve goes LIVE – Round 2*. Panel presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, University of Birmingham, Birmingham, UK.
- Ramlo, Susan (2011). *Student evaluation of a course for pre-service math teachers*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, University of Birmingham, Birmingham, UK.

- Newman, Isadore, Howley, Aimee, & Ramlo, Susan (2011). *Research on mixed methods Approaches to addressing generalization and transferability in evaluations in rural contexts: The use of Q Factor Analysis as potential tool for evaluating rural education programs*. Roundtable presented at the American Educational Research Association Conference, New Orleans, LA.
- Ramlo, Susan (2011). *Student evaluations of teaching using Q Methodology*. Paper presented at the Eastern Educational Research Association Conference, Sarasota, FL.
- Ramlo, Susan (2010). *Q Methodology as a tool for program assessment and decision-making*. Paper presented at the Midwestern Educational Research Association Conference, Columbus, OH.
- Ramlo, Susan (facilitator), Brown, Steve, Rhoades, James, Stainton-Rogers, Wendy, & Dan Thomas (2010). *Panel of Experts: Q list-serve goes LIVE*. Panel presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, The University of Akron, Akron, OH.
- Ramlo, Susan (facilitator), Brown, Steve, Rhoades, James, Logan, Rob & Dan Thomas (2010). *Panel discussion on William Stephenson in celebration of the 75th anniversary of the letter to Nature*. Panel presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, The University of Akron, Akron, OH.
- Ramlo, Susan, Arter, Roland, Collins, Linda, Kraft, Lori, Miller, Michelle, Thompson, Janet, Vargo, Lori & Kathryn Vuchak (2010). *Panel discussion on a Q study performed as part of a graduate level summer workshop*. Panel presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, The University of Akron, Akron, OH.
- Ramlo, Susan & Berit, Kari (2010). *A needs assessment for caregivers of aging adults: A pilot study using Q Methodology*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, The University of Akron, Akron, OH.
- Ramlo, Susan (2010). *A novel application of Q Methodology as a tool for program assessment*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, The University of Akron, Akron, OH.
- Newman, I. Ramlo, S. & Dickinson, W. (2010, May). *Mixed Methods Research visualizations: Improving the presentation of Q factor analysis data using Bubble Plots*. Paper presented at the American Educational Research Association Conference, Denver, CO.
- Ramlo, S. (2010, March 10). *Students' views of learning physics*. Roundtable presented at the first annual Regional STEM Conference, Akron, OH.
- Ramlo, S. (2010, February). *Applications of Q Methodology in higher education*. Paper presented at the Eastern Educational Research Association, Savannah, GA.
- Newman, I. Ramlo, S., Dickinson, W. (2009, November). *Mixed methods research visualizations: Multivariate presentation of Q-Factor analysis findings using Bubble Plots*. Paper presented at the Florida Educational Research Association Conference, Orlando, FL.
- Newman, I. & Ramlo, S. (2009, October). *How multivariate quantitative techniques can be used to facilitate the interpretation of qualitative data: A case study*. Paper presented at the Midwestern Educational Research Association Conference, St. Louis, MO.
- Ramlo, S. & Nicholas, J. B. (2009, October). *In-service science teachers' views about learning physics*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, St. Louis, MO.
- Ramlo, S. & Newman, I. (2009, October). *Q Methodology: A preexisting paradigm in a new age of mixed methods research*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, St. Louis, MO.

- Ramlo, S. (2009, July). *In-service science teachers' Newtonian conceptual understanding before & after a one week workshop*. Contributed poster presentation at the Physics Education Research Conference, Ann Arbor, MI.
- Ramlo, S. (2009, July). *Improving in-service science teachers' conceptual understanding of force and motion*. Contributed paper presentation at the American Association of Physics Teachers summer meeting, Ann Arbor, MI.
- Ramlo, S. (2009, February). *In-service science teachers' conceptual understanding of force and motion before and after a one week workshop*. Paper presented at the Eastern Educational Research Association, Sarasota, FL.
- Ramlo, S. E., & Nicholas, J. B. (2009, February). *In-service teachers' conceptual understanding and views on learning physics: A study using Q Methodology*. Paper presented at the Eastern Educational Research Association, Sarasota, FL.
- Ramlo, S. (2008, October). *Determining perspectives and consensus using a mixed methodology: An introduction to Q Methodology*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Hamilton, ON.
- Ramlo, S. (2008, July). *Student perspectives on learning physics and their learning of force and motion concepts*. Contributed poster presentation at the Physics Education Research Conference, Edmonton, Alberta Canada.
- Ramlo, S. (2008, July). *The effect of clickers on force and motion conceptual understanding*. Contributed paper presentation at the American Association of Physics Teachers summer meeting, Edmonton, Alberta Canada.
- Randal, N., Qammar, H., Ramlo, S et al (2008) *Carnegie Collaborations – Leadership for undergraduate research*. Interactive presentation and roundtable at the Council on Undergraduate Research conference, St. Joseph, MN.
- Ramlo, S., Nicholas, J., Kraft, L., & Lukach, T. (2008, May). *reVisioning a technical writing course for STEM*. Breakout session at the Ohio Learning Network Teaching and Learning Expo, Renaissance Hotel, Columbus, OH
- Ramlo, S., Qammar, H., Copeland, B., Subich, L., Steiner, R., Mugler, D. & Smith, A. (2008, April). *Undergraduate research: What is it, How does it work, and Why it leads to student success*. Presentation at the 7th annual Celebration of Excellence in Learning and Teaching, The University of Akron, Akron, Ohio.
- Ramlo, S., Thompson, J. & Arter, R. (2008, April). *Student views of learning relative to their instructor's view: A study using Q methodology across several courses*. Presentation at the 7th annual Celebration of Excellence in Learning and Teaching, The University of Akron, Akron, Ohio.
- Ramlo, S. (2008, April). *Facilitating a faculty learning community: An application of Q methodology*. Presentation at the 7th annual Celebration of Excellence in Learning and Teaching, The University of Akron, Akron, Ohio.
- Ramlo, S. (2008, February). *Facilitating a faculty learning community using Q methodology*. Paper presented at the Eastern Educational Research Association, Hilton Head, SC.
- Ramlo, S., & Jurczyk, J. (2007, October). *An introduction to Q Methodology: Determining perspectives using a mixed methodology*. Workshop presented at the annual meeting of the Midwestern Educational Research Association, St. Louis, MO.
- Ramlo, S. (2007, October). *Results of the AAPT Summer 2007 Workshop Developing activities for Compadre.org*. Presentation at the fall meeting of the Ohio Section of AAPT, John Carroll University, University Heights, OH.

- Ramlo, S., Thompson, J. & Arter, R. (2007, October). *Investigating students' views of learning in several different undergraduate classrooms: A study using Q methodology*. Paper presented at the Ohio Association of Two Year Colleges conference, Akron, OH.
- Ramlo, S., Thompson, J. Arter, R. & Steiner, S. (2007, October). *Determining views of knowledge in several different college classrooms: A study using Q methodology*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Bethesda, MD.
- Ramlo, S. (2007). *Student views of learning in a first semester college physics course: A study using Q methodology*. Roundtable (one-hour) presentation at the Physics Education Research Conference, Greensboro, NC.
- Ramlo, S. (2007). *Critical thinking and the learning of force and motion concepts*. Paper presentation at the American Association of Physics Teachers summer meeting, Greensboro, NC.
- Ramlo, S., Copeland, B., Subich, L., Steiner, R., Mugler, D. & Smith, A. (2007, April). *CASTL: Promoting undergraduate research at The University of Akron*. Presentation at the 6th annual Celebration of Excellence in Learning and Teaching, The University of Akron, Akron, Ohio.
- Ramlo, S., Thompson, J. Arter, R. & Steiner, S. (2007, April). *A study of college classroom epistemology using Q methodology*. Presentation at the 6th annual Celebration of Excellence in Learning and Teaching, The University of Akron, Akron, Ohio.
- Ramlo, S., Jurczyk, J., Herbert, A., & Newman, I. (2007, February) *Q-Methodology and Q-Factor Analysis*. Workshop session presented at the Eastern Educational Research Association annual conference, Clearwater, FL. (slides available at <http://slideplayer.us/slide/220043/>).
- Ramlo, S. E. (2007, February). *An evaluation of critical thinking skills in a first semester college physics course*. Paper presented at the Eastern Educational Research Association annual conference, Clearwater, FL.
- Ramlo, S., Thompson, J. & Kaut, K. (2006, October). *Determining epistemological views among different groups of undergraduate students*. Paper presented at the annual meeting of the Midwestern Educational Research Association, Columbus, Ohio.
- Ramlo, S. (2006, October). *A valid and reliable instrument for measuring force and motion conceptual understanding*. Paper presented at the annual meeting of the Midwestern Educational Research Association, Columbus, Ohio.
- Ramlo, S., Thompson, J. & Kaut, K. (2006, September). *Undergraduate students' epistemological views determined using Q methodology: A study involving three different courses*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Trondheim, Norway.
- Ramlo, S. (2006, July). *Validity and reliability of the Force and Motion Conceptual Evaluation*. Paper presentation at the American Association of Physics Teachers summer meeting, Syracuse University, Syracuse, NY.
- Ramlo, S. (2006, July). *Workshop on teacher preparation at the Ohio section's spring 2006 meeting*. Poster presented at the American Association of Physics Teachers summer meeting, Syracuse University, Syracuse, NY.
- Ramlo, S. (2006, April). *An evaluation of The University of Akron spring 2005 reading circle experience*. Presentation at the 5th annual Celebration of Excellence in Learning and Teaching, The University of Akron, Akron, Ohio.
- Ramlo, S. (2006, April). *Assessing critical thinking skills and their effect on learning force and motion concepts in a first semester physics course*. Presentation at the 5th annual Celebration of Excellence in Learning and Teaching, The University of Akron, Akron, Ohio.

- Ramlo, S., Thompson, J. & Kaut, K. (2006, April). *Consideration of a way to determine students' views of knowledge*. Roundtable at the 5th annual Celebration of Excellence in Learning and Teaching, The University of Akron, Akron, Ohio.
- Ramlo, S. E. & McConnell, D. (2006, April). *Faculty reading circles as an effective professional development experience*. Poster presented at the 2006 Colloquium on the Scholarship of Teaching and Learning: Evidence, Impact, and Momentum. Madison, WI.
- Ramlo, S. E. (2006, February). *The role of critical thinking in the learning of physics: The continuing saga*. Paper presented at the Eastern Educational Research Association, Hilton Head, SC.
- Ramlo, S. E. (2005, October). *Problem solving strategy*. Presentation at the fall meeting of the Ohio Section of the American Association of Physics Teachers, Shaker Heights High School, Shaker Heights, Ohio.
- Ramlo, S. E. (2005, October). *The role of critical thinking in the learning of physics concepts*. Paper presented at the annual meeting of the Midwestern Educational Research Association, Columbus, Ohio.
- Ramlo, S. & McConnell, D. (2005, October). *An evaluation of university faculty reading circles using Q methodology*. Paper presented at the International Society for the Scientific Study of Subjectivity / Q Methodology Conference, Vancouver, BC.
- Ramlo, S. E. (2005, April). *Using student stories to teach: Jeff J., the raccoon, and linear momentum*. Presentation at the Celebration of Excellence in Learning and Teaching, The University of Akron, Akron, Ohio.
- Ramlo, S. E. (2005, March). *Realtime Physics labs & their homework – Getting more learning in a college physics course*. Presentation at the spring meeting of the Ohio Section of the American Association of Physics Teachers, John Carroll University, University Heights, Ohio.
- Ramlo, S. E. (2005, March). *Determining perspectives in an education setting using Q methodology*. Presented at the Eastern Educational Research Association, Sarasota, FL.
- Ramlo, S. E. (2004, October). *The role of mathematical course work in learning of physics concepts*. Paper presented at the annual meeting of the Midwestern Educational Research Association, Columbus, Ohio.
- Jurczyk, J. & Ramlo, S. (2004, September). *A new approach to performing course evaluations: Using Q methodology to better understand student attitudes*. Paper presented at the International Society for the Scientific Study of Subjectivity, Athens, GA.
- Ramlo, S. E. (2004, February). *Factor analysis to assess learning of force and motion concepts in a college freshman physics course*. Presented at the Eastern Educational Research Association, Clearwater Beach, FL.
- Ramlo, S. E. (2003, October). *The Force and Motion Conceptual Evaluation Part 2*. Paper presented at the annual meeting of the Midwestern Educational Research Association, Columbus, Ohio.
- Ramlo, S. E. (2003, October). *Assessing learning in a college freshman physics class*. Presentation at the spring meeting of the Ohio Section of the American Association of Physics Teachers, Case Western Reserve University, Cleveland, Ohio.
- Ramlo, S. E. (2002, October). *The Force and Motion Conceptual Evaluation*. Paper presented at the annual meeting of the Midwestern Educational Research Association, Columbus, Ohio.
- Ramlo, S. E. (2002, March). *A rubric for a formal lab report*. Presentation at the spring meeting of the Ohio Section of the American Association of Physics Teachers.
- Ramlo, S. E. (2001, October). *Repelled by Pledge Grab Its*. Presentation at the fall meeting of the Ohio Section of the American Association of Physics Teachers.
- Ramlo, S. E. (1999, October). *Cooperative learning for problem solving in mechanics*. Presentation at the fall meeting of the Ohio Section of the American Association of Physics Teachers.

- Marcum, S. D. & Spagno, S. E. (1986). *X-ray induced fluorescence of rare-Earth doped CaF_2* . Presentation at the spring Ohio Section, American Physical Society meeting, Athens, Ohio.
- Wells, W., Spagno, S. E., Little, R., Strauss, G., Kepler, K. (1986). *Determination of electron temperature in an e-beam generated plasma*. Presentation at the spring Ohio Section, American Physical Society meeting, Athens, Ohio.