

CURRICULUM VITAE

University of Idaho

NAME: Timothy Gorman Ewers, Ph.D.

DATE: October 15, 2020

RANK OR TITLE: Professor, Cooperative Extension System, College of Agricultural & Life Sciences

DEPARTMENT: University of Idaho Extension 4-H Youth Development

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DATE OF FIRST EMPLOYMENT AT UI: January, 1999

DATE OF TENURE: (Year or untenured): 2011

DATE OF PRESENT RANK OR TITLE: March, 2018

EDUCATION BEYOND HIGH SCHOOL:

Degrees:

Ph.D., University of Idaho, Moscow, Idaho, 2001, Curriculum and Instruction: STEM Education

M.S., University of Washington, Seattle, Washington, 1993, Environmental Toxicology

B.S., Seattle University, Seattle, Washington, 1985, Chemistry

B.A., Seattle University, Seattle, Washington, 1985, Biology

Certificates and Licenses:

Introduction to the Internet of Things and Embedded Systems, 2016

The Arduino Platform and C Programming, 2016

ROBOTC for LEGO Programming Instructor, 2012

NIH, Human Participants Protection Education for Research Teams Certification

Global Learning and Observations to Benefit the Environment Certification

Technology Competence Certification, Idaho

USA Youth Hockey Coach, Level 4

Community Emergency Response Team Certification

EXPERIENCE:

Teaching, Extension and Research Appointments:

Professor, University of Idaho, Moscow, Idaho, College of Agricultural and Life Sciences, March 2018-present

Associate Professor, University of Idaho, Moscow, Idaho, College of Agricultural and Life Sciences, June 2011 - 2018

Assistant Professor, Tenure Track, University of Idaho, Moscow, Idaho, College of Agricultural and Life Sciences, August 2005 – May 2011

Assistant Research Professor (Science and Mathematics Education), Non-tenure track, University of Idaho, Moscow, Idaho, College of Education, August 2001- July 2005

Education Specialist/ Instructor (Science and Mathematics Education), University of Idaho, Moscow, Idaho, College of Education, September 1999- August 2001

Teaching Assistant (Mathematics Education), University of Idaho, Moscow, Idaho, College of Education, January 1999- August 1999

Research Scientist / Technical Liaison, University of Washington, Seattle, Washington, Department of Environmental Health, February 1997- December 1998

Research Scientist, University of Washington, Seattle, Washington, Department of Environmental Health, March 1996- February 1997

Research Technologist III, University of Washington, Seattle, Washington, Department of Environmental

Health, September 1993- March 1996
 Research Associate, University of Washington, Seattle, Washington, Department of Environmental Health,
 September 1991- September 1993
 Research Technologist II, University of Washington, Seattle, Washington, Department of Reproductive
 Health, August 1988- September 1991
 Research Technologist I, University of Washington, Seattle, Washington, Department of Reproductive
 Health, August 1985-September 1988

TEACHING ACCOMPLISHMENTS:

Areas of Specialization: Youth Development, K-12 Science and Mathematics Education, and Program Evaluation

Courses Taught:

“Wired for Literacy,” AG 405/505, 14 Teachers, Spring 2009
 “Science Energy Curriculum Activities for Summer Youth Programs,” AG 405, Summer 2008
 “LEGO Robotics and the *FIRST* LEGO League,” AG 405, 7 Teachers, Summer 2008
 “Data Driven Decision Making,” EDTE 502 Spring 2005
 “Foundations of Educational Research,” ED 580, Summer 2003, Fall 2003, Summer 2004, Fall 2004
 “Elementary School Math Teaching Field Experience,” EDTE 437, 2003-2005
 “Integrated Science for Elementary Education Majors,” INTR 103, 1999-2002, 2003-2005
 “Physical Science for Elementary and Middle School Teachers,” EDTE 505, 2004
 “Elementary School Math Education,” EDTE 327 Co-taught with Sharon Beidler (Moscow School District), 2001-2004
 “Quantitative Analysis in Educational Research,” EDTE 502, Summer 2004
 “Classroom Assessment of Mathematical Performance,” EDTE 505, 2002, 2003
 “Physical Science”, Moscow Renaissance Charter School, Grades 9-12, 2003-2004. (Team taught w/ Anne Adams 7 hours per week)
 “Secondary School Math Methods,” EDTE 434, 2003
 “Secondary School Math Teaching Field Experience,” EDTE 454, 2003
 “Advanced Research Methods,” ED 586, Fall 2003
 “Global Learning and Observation to Benefit the Environment,” ED 503, 2002-2003
 “Secondary School Math Methods,” EDTE 478, 2002
 “Secondary School Math Methods,” EDTE 499, 2002 online version
 “Elementary School Math Education,” EDTE 326, 2001-2002
 “Advanced Elementary Mathematics Methods,” EDTE 502, 2001
 “Elementary Science Education,” EDTE 329, 2001
 “Standards-Based Science Curriculum,” EDTE 508, 2001
 “Trends and Issues in Education: Education Reform,” ED 501, Seminar 2000
 “Constructing Physics Understanding for Teachers,” ED 503, Workshop Moscow, ID 2000
 “Elementary School Science Methods,” EDTE 444, 1999-2000

Students Advised:

Graduate Students:

Advised to completion of degree-major professor:

Yu-Liang Chang, Ph.D., Mathematics Education, 2003

Served on graduate committee:

Meagan Hash, M.S., Conservation Social Sciences, 2014-2016

Chi-Ying Chen, Ph.D., Educational Technology, 2005

John Ophus, Ph.D., Science Education, 2005

Allen Kitchel, Ph.D., Adult Education, 2005

Abraham Wallin, M.S., Math Education, 2005

Shunichi Itoga, M.S., Environmental Science Education, 2004

Wendy Ruchti, Ph.D., Science and Mathematics Education, 2004

Jason Abbitt, Ph.D., Educational Technology, 2004

Materials Developed:

Robotic Math: Mathematical modeling of robotic behavior. Lessons for middle school math classrooms introducing data collection, creating a math model, and using the math model for programming robots, Winter-Spring, 2016-2017.

WeDo Robotics course for Parent and Child. Lessons designed for Parent-Child interactions learning to use LEGO WeDo for creative expressions, Spring, 2016.

Physical Computing Club Activities. Series of structured activities to teach use of the Arduino Platform, Programming in the Arduino IDE, and Basic Circuitry, Spring-Summer, 2016

Compendium of STEM tinkering activities and training materials for use in the Eureka! Palouse Tinkering & Tutoring Center, Spring-Summer, 2016.

Physical Computing using the Arduino Platform. A 10-week course for introducing electronic circuitry, soldering, breadboarding, and coding, 2015.

Physics for Elementary Students. A set of activities for use at a 4-H STEM Center to engage youth in exploring concepts of motion, magnetism, and light, 2015.

Learning Design Critique by reverse engineering and testing others' robot build plans for the EV3 Robotic System, (Update from the 2012 NXT Activities). 4-H afterschool and summer camps, 2014.

Learning to Use Sensors in the WeDo Robotic System: A set of lessons for classroom and afterschool programs, 2014.

Engineering Design using the WeDo Robotics System. A set of lessons for the K-2 classroom and afterschool program, 2014.

Open Source Electronics. Introduction activities to jump-start an open source electronics program, 2014.

Updates to FLL Coaching Trainings: What is FIRST LEGO League (FLL), How to Coach FLL Teams, Robotics Programming in EV3. 2014.

Updates to Trainings for UI Robotics Tournaments Volunteers: Event Managers, Judges, Referees, Field Tech Advisors, and Scorekeepers, 2014.

WeDo Robotics Extension Activities for developing engineering design understanding and practice for youth and adults, 2013.

FIRST LEGO League (FLL) Coach Training: Coaching FLL Teams, 2013.

FIRST Tech Challenge (FTC) Coach Training: Coaching FTC Teams, 2013.

Measuring the ground length of a degree latitude and a degree longitude using GPS and estimating the Earth's latitudinal circumference. An activity for 4-H summer camps, 2012.

"Writing" on maps using GPS tracking data. An activity for 4-H summer camps, 2012.

Learning Design Critique by reverse engineering and testing others' robotic build plans for the Mindstorms NXT Robotic System. Activities for 4-H afterschool and summer camps, 2012.

Programming in NXT-G for LEGO Mindstorms: Training for 4-H Leaders and FLL Coaches. Provided to leaders/coaches of LEGO Teams and Clubs via one-on-one trainings and webinars, 2011.

Introduction to Programming the LEGO WeDo System. Provided to leaders/coaches of LEGO Teams and Clubs via one-on-one trainings and webinars, 2011.

LEGO WeDo Activities: A series of activities for use in 4-H Cloverbud, After-school, and School Enrichment programs, 2011.

Reading Robotics for the Elementary Classroom, a 5-day curriculum that utilizes the LEGO WeDo System in the context of a story that the youth create, 2011.

FLL Event Manager Training. How to run an FLL Event, 2011.

FLL Event Management Programs, Schedules, and Materials for running FLL events, 2011.

Tournament On Wheels. This is a trailer which I modified and provisioned with the materials and equipment needed to run an FLL or FTC tournament and to host robotics workshops/trainings. The trailer is mobile, which enables greater outreach, 2011.

Sumobot Competition Rules and Tournament Guidelines. How to run a Sumobot event with the rules and regulations. Used for Boys Scouts Camp and 4-H Teen Conference, 2011.

4-H WeDo Robotics. Leader training materials and activities for programs. Teen Conference, June 15-16, 2010

FIRST Tech Challenge (FTC) Referee Training. Materials used for training referees for the Idaho FTC Regional Tournament (2010)

FIRST Tech Challenge (FTC) Judge Training. Materials used for training judges for the Idaho FTC Regional Tournament (2010)

FIRST Tech Challenge (FTC) Field Technical Advisor Training. Materials used for training Field Technical Advisor for the Idaho FTC Regional Tournament (2010)

Geocache-Olympics, a GPS activity developed to support Ag. Days Program, October 2-3, 2009

Geospatial Mapping Activities, materials developed to support Ag. Days Program, October 2-3, 2009

FIRST Tech Challenge (FTC) Tournament Manual. Materials for helping FTC Coaches work with their teams and prepare for the tournament (2009)

Getting Started with the Tetrrix Robotics System for the *FIRST* Tech Challenge (FTC) Program: Activities for learning to build and program a Tetrrix bot for *FIRST* TECH Challenge Competition (2009)

How to Start a *FIRST* Tech Challenge (FTC) Team: A how-to guide for starting, registering, and managing an FTC Team. (2009)

FIRST LEGO League (FLL) Judge Training. Materials for training the FLL Judges for the 2009 FLL Tournaments. (2009)

FIRST LEGO League (FLL) Referee Training. Materials for training the FLL Referees for the 2009 FLL Tournaments. (2009)

FIRST LEGO League (FLL) Tournament Manual. Materials for FLL Event Managers to run qualifying tournaments. (2009)

Activities for learning to program the LEGO Mindstorms Robotic System for use in the *FIRST* LEGO League (FLL) Tournaments (2009)

Physics on Ice, Activities for Middle School Youth to Explore Properties of Ice and Motion. Activities conducted at the Palouse Ice Rink weekly for 6 weeks in the winter of 2009

GPS and Google Earth: Tracking your course on Google Earth. Activities to support 4-H GPS Activities (2009)

The GPS Amazing Race. A combination of geocaching and the TV game show, "The Amazing Race." Teams compete by conducting team challenges to get GPS locations to the next challenge (2008)

Robotics for 4-H Clubs. A three-phase program of activities designed to supplant the obsolete 4-H robotics curriculum. Curriculum introduces mechanical and computer engineering principles (2008)

FIRST LEGO League (FLL) Tournament Manual. Materials develop to help FLL Coaches/Parents/Youth plan for and the state qualifying and championship tournaments (2008)

FIRST Tech Challenge (FTC) Coaches' Materials for the 2008-9 FTC Season. (2008)

FIRST LEGO League (FLL) Coaches' Manual. Materials developed to help FLL Coaches learn about the FLL program, their responsibilities as a coach, coaching techniques, and an introduction to the NXT Robotics System. (2008)

How to Start an FLL Team. A how-to guide for starting, registering, and managing a *FIRST* LEGO League (FLL) Team. (2008)

Life Skills Evaluation Survey Data Entry and Analysis System, an Excel workbook used by counties for entering Life Skill Survey data. The system then calculates, tabulates, and reports analysis of life skills data. (2008)

Why Do Things Slow Down? A hands-on science (physics) activity used to help adults/4-H leaders understand the importance of the reflection stage of the experiential learning model. (2007)

What Conditions are Necessary to Light a Bulb? A hands-on science (physics) activity used to help adults/4-H leaders understand the importance of the reflection stage of the experiential learning model. (2007)

Which is the Best Cookie? This activity is designed to introduce assessment and evaluation concepts and methods for 4-H Staff Training. (2007)

Summer Space Camp: NASA curriculum materials adapted to the after-school milieu. I assembled and modified 15-20 curriculum activities from NASA Education to suit the situation and needs of afterschool programs. I also extended the program with additional activities including a water-rocket building and launch. (2006, revised 2007)

Mini-challenges for Robotics Workshops (Do the Robot Dance, Clear the Table, The SumoBot Challenge, Find the Light). These activities were developed to support the robotics workshops I conducted. (2006, 2007)

Activities for Getting Your *FIRST* LEGO League Team Started, A Coaches' Guide. These activities are designed to help coaches learn about the *FIRST* LEGO League (FLL) program and to help them organize their teams during the FLL Season. (2007)

Activities for GPS Workshops (Virtual "Treasure Hunt" on the UI Campus; Geo-caching courses; Measuring the Longitude with a GPS). I developed these activities to supplement the workshop instruction. (2006, 2007)

NASA Life-long Learning Online: The Mars Discovery Project, (<http://13-lewisandclark.org>). This is web-based set of learning modules that paralleled a future trip to Mars to the Lewis and Clark Expedition. (2004-2005)

Field activities to complement GLOBE protocols (Calculating the distance across a wide stream; Estimating the number of trees or bushes in a forest; Estimating stream flow rates; physical GPS-locating objects by triangulation) GLOBE Program, (1998-2005)

Online science process skills activities and assessments for Dorothy Gabel's Science Skills for Elementary Teachers, (Longman Publishing; 2001)

Problem of the Week Challenges. These materials were created for Gifted and Talented 5th and 6th Grade Students. The challenges were designed to introduce youth to algebra and geometry. (2000-2001)

Web-based ancillary materials for elementary and secondary mathematics methods courses (Idaho Virtual Campus; 1999)

Courses Developed:

Ag 405	LEGO Robotics and the <i>FIRST</i> LEGO League: A course for teachers
Ag 405	Science/Energy Curriculum Activities for Summer Youth Programs
INTER 103	Integrated Science for Elementary Education Majors
EDTE 327	Elementary School Math Methods (w/ Dr. Gwen Kelly)
EDTE 478	Secondary Math Methods (w/Dr. Gwen Kelly)
EDTE 402	Managing Classroom Information
EDTE 499	Advanced Elementary Mathematics Methods
EDTE 502	Data Driven Decision Making
EDTE 505	Classroom Assessment for Mathematical Performance
EDTE 505	Physical Science for Elementary and Middle School Teachers
ED 580	Foundations of Educational Research

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:

4-H STEM Challenge: Mars Basecamp, October 5-30, 2020 (48 teams/clubs/classes, 400 youths, 48 adults).

Evaluation in 4-H. Staff Development/Orientation Modules. April 8, 2020 (6 attendees).

University of Idaho *FIRST* Tech Challenge (FTC) State Championship Tournament, February 28-29, 2020 (30 Teams, 290 Youths, 60 Adults, 60 Volunteers).

University of Idaho *FIRST* LEGO League (FLL) Southern Idaho State Championship, February 15, 2020 (34 Teams, 298 Youths, 70 Adults, 50 Volunteers).

University of Idaho *FIRST* LEGO League (FLL) Northern Idaho State Championship, January 25, 2020 (30 Teams, 250 Youths, 60 Adults, 48 Volunteers).

University of Idaho *FIRST* LEGO League (FLL) Qualifying Tournaments - 2019, 13 tournaments statewide (Buhl, Idaho Falls, Orofino, Ontario, Twin Falls, Rathdrum, Treasure Valley A, Bonners Ferry, Coeur d'Alene A, Payette, Treasure Valley B, and Coeur d'Alene B), conducted December 7, 8, 13, and 14, 2019 and involving 164 teams, 1,200 youth, 320 mentors, and 370 tournament volunteers.

Evaluation in 4-H. Staff Development/Orientation Modules. February 20, 2019 (10 Faculty members).

Friday Robotics. Middle school EV3 Mindstorms robotics program held at St. Mary's School on Fridays, January-May 2019 (21 youth).

Eureka! Palouse Spring STEM Camps, March 2019, week-long camp involving youth in coding, making activities, 3D printing, robotics, drone flight and videography (20 youth).

University of Idaho Extension 4-H FIRST Tech Challenge (FTC) State Championship Tournament, March 9-10, 2019 (32 teams, 200 youth, 34 Adults, 50 Volunteers).

University of Idaho Extension 4-H FIRST LEGO League (FLL) Northern Idaho State Championship, January 26, 2019 (32 Teams, 300 youth, 64 Adults, 45 Volunteers).

University of Idaho Extension 4-H FIRST LEGO League (FLL) Southern Idaho State Championship, Twin Falls, ID, January 12, 2019 (45 Teams, 410 youth, 90 Adults, 50 Volunteers).

University of Idaho FIRST LEGO League (FLL) Qualifying Tournaments - 2018, 13 tournaments statewide (Buhl, Idaho Falls, Moscow, Ontario, Twin Falls, Rathdrum, Boise1, Bonners Ferry, Coeur d'Alene1, Payette, Boise2, and Coeur d'Alene2), conducted December 1, 8, 14, 15, and 16 and involving 192 teams (167 ID, 22 OR, 2 WA, and 1 NV), 1,353 youth, 384 mentors, and 370 tournament volunteers).

Drone Making, Programming, and Flying at 4-H Teen Conference, June 26-27, 2018 (24 Youth).

Eureka! Palouse Summer STEM Camps, June-August 2018, 8, week-long camps involving youth in coding, making activities, 3D printing, robotics, drone flight and videography (130 youth).

Experiences of First-Year 4-Hers, A data party, Western Regional Leaders' Forum, San Diego, CA, March 3, 2018 (10 Adults).

University of Idaho Extension 4-H FIRST Tech Challenge (FTC) State Championship, Moscow, ID, February 16-17, 2018 (35 Teams, 250 youth, 70 Adults, 50 volunteers).

Physical Computing with Arduino, Eureka! Palouse Tinkering & Tutoring Center, Moscow, ID, February 5-9, 2018

University of Idaho Extension 4-H FIRST LEGO League (FLL) Southern Idaho State Championship, Twin Falls, ID, February 2, 2018 (45 Teams, 420 youth, 90 Adults, 50 Volunteers).

University of Idaho Extension 4-H FIRST LEGO League (FLL) Northern Idaho State Championship, Moscow, ID, January 20, 2018 (26 Teams, 200 youth, 52 Adults, 40 Volunteers).

University of Idaho FIRST LEGO League (FLL) Qualifying Tournaments, 11 tournaments statewide (Rathdrum, Idaho Falls, Coeur d'Alene, Payette, Nampa, Bonners Ferry, Kuna-Sat, Kuna-Sun, Pocatello, Twin Falls, and Moscow) December 1, 2, 9, 10 and 16, 2017 (164 Teams, 1,400 youth, 300 adults, 330 tournament volunteers).

Eureka! Palouse STEM Days. Two days of STEM activities conducted at the Eureka! Palouse Tinkering & Tutoring Center, Moscow, ID. 10/5-6/17.

4-H Curriculum Showcase. The Idaho 4-H STEM Curriculum. Conducted at 4 locations in Idaho including, Idaho Falls, Twin Falls, Caldwell, and Coeur d'Alene. 9/25-28/17.

Mapping Idaho Afterschool and Out-of-School Time Programs: A first look at the results from the Statewide Survey, "Mapping Idaho Youth Resources". Presented at the Idaho Afterschool Summit, September 14, 2017 (120 adults).

Idaho FIRST Robotics Season Kick-off. Game reveal and presentation of the FLL and FTC programs for the general public. September 9, 2017 (40 youth, 20 adults).

Eureka! Palouse/4-H STEM Camps. Eureka! Palouse Center, June-August, 2017. 5, week-long camps involving youth in: Robotics, physical computing, 3-D Printing, Flying drones, building and tinkering, simple machines and Rube Goldberg contraptions (50 youth).

Eureka! Palouse/4-H Physical Computing Club. Spring-Summer, 2017. Weekly club meetings among electronics enthusiasts/interested persons. (10 youth, 3 adults).

STEM For All. Society of Women Engineers Open House. Washington State University, Pullman, Washington, March 25, 2017. (General Public, ~100 parent-child participants).

University of Idaho Extension FIRST TECH Challenge (FTC) State Championship Tournament, Moscow, ID February 11, 2017 (29 teams, 254 youth, 48 adult mentors, 45 tournament volunteers).

University of Idaho FIRST LEGO League (FLL) Southern Idaho State Championship Tournament, Twin Falls, ID, January 28, 2017 (42 teams, 380 youth, 84 adult team coaches, 60 tournament volunteers).

University of Idaho FIRST LEGO League (FLL) Northern Idaho State Championship Tournament, Moscow, ID, January 14, 2016 (32 Teams, 200 youth, 64 adult team coaches, 50 tournament volunteers).

University of Idaho FIRST LEGO League (FLL) Qualifying Tournaments, 10 tournaments statewide (Payette, Idaho Falls, Bonners Ferry, Rathdrum, Meridian, Twin Falls, Coeur d'Alene, Moscow, Nampa, and Pocatello) December 13, 10, and 17, 2016 (162 Teams, 1,400 youth, 300 adults, 300 tournament volunteers).

Planning and Conducting the 4-H National Youth Science Day Drone Discovery Program, a professional development course for 4-H Professionals and Volunteers, September 30, 2016, October 3, 5, and 6, 2016. (45 participants).

Programming in WeDo 2.0. A professional development course for 4-H Professionals and 4-H Volunteers, September 20, 2016. (10 participants).

FIRST Season Kick-off and Game Reveal for FLL and FTC Programs, an event inviting the community to learn about robotics educational opportunities, Schweitzer Engineering Labs, Pullman, WA, September 14, 2016. (~200 participants).

FIRST Season Kick-off and Game Reveal for FLL and FTC Programs, an event inviting the community to learn about robotics educational opportunities, Eureka! Palouse Center, Moscow, ID, September 10, 2016. (~150 participants).

Introduction to Physical Computing with Arduino. 10-hour course at Eureka! Palouse, Summer 2016. (15 parents/children).

Enriching Out-of-School time for Youth: A regional roundtable workshop to convene local interested parties in STEM Education to find common purpose to promote STEM educational opportunities. In collaboration with the Idaho Afterschool Network, Eureka! Palouse Center, Moscow, ID, May 13, 2016. (25 participants).

WeDo Robotics for Families – A five-week course designed for Parent-Child engagement in learning to build and program using the LEGO WeDo Robotics System, Eureka! Palouse Tinkering & Tutoring Center, Moscow, ID April 4-May 5, 2016. (20 participants).

STEM For All. Society of Women Engineers Open House. Washington State University, Pullman, Washington, April 2, 2016. (~120 participants).

University of Idaho FIRST Tech Challenge (FTC) State Championship Tournament, Moscow, ID, February 20, 2016 (31 teams, 229 youth, 62 adult mentors, 45 tournament volunteers).

University of Idaho FIRST LEGO League (FLL) Southern Idaho State Championship Tournament, Twin Falls, ID, January 30, 2016 (40 teams, 360 youth, 80 adult team coaches, 55 tournament volunteers).

University of Idaho FIRST LEGO League (FLL) Northern Idaho State Championship Tournament, Moscow, ID, January 16, 2016 (31 Teams, 190 youth, 62 adult team coaches, 45 tournament volunteers).

University of Idaho FIRST LEGO League (FLL) Qualifying Tournaments, 8 tournaments statewide (Payette, Idaho Falls, Kuna, Twin Falls, Moscow, Coeur d'Alene, Pocatello, and Rathdrum) December 12 and 19, 2015 (150 Teams, 1,213 youth, 300 adults, 250 tournament volunteers).

Making and Tinkering to Learn STEM and to Learn about Teaching STEM. A lecture in the Learning and Development in Education Course at Washington State University, September 25, 2015.

FIRST Kickoff Game Reveal and Introduction to the new Communications System, Schweitzer Engineering Labs, Pullman, WA, September 17, 2015. (~150 participants)

FIRST Kickoff Game Reveal and Introduction to the new Communications System, Discovery Center of Boise, Boise, ID, September 11-12, 2015. (~150 participants).

The EV3 Mindstorms Robotics System – A prep camp for the FIRST LEGO League (FLL) Program. Five days, 4-5 hours/day in-depth lessons in accomplishing in FLL. Bonkerz Indoor Playcenter, Moscow, ID, August 17-21, 2015. (20 participants).

The WeDo Robotic System and the Reading Robotics Curriculum –Section 1 – Introduction to building and programming with WeDo. Section 2 – Overview of the WeDo Lesson Packet. Leader Training conducted via webinar (Zoom Conferencing) scheduled as requested. Ran 11 sessions involving 21 persons from April through July, 2015.

The FIRST Programs and Higher Education: How to engage with higher to increase involvement in FIRST Programs as venues, volunteers, and educational support. FIRST Annual Meeting, Manchester, N.H., June 8-12, 2015.

Introduction to Physical Computing with Arduino. Nazarene Community Center, Moscow, ID, April – May, 2015. (20 participants).

4-H Tech Wizards Professional Development. Mountain Home Air Force Base, Mountain Home, ID, May 4-7, 2015. (6 participants).

University of Idaho FIRST Tech Challenge (FTC) State Championship Tournament, Moscow, ID, February 7, 2015 (35 teams, 228 youth, 70 adult mentors, 45 tournament volunteers).

FTC: Programming in LabVIEW. 2-hour workshop provided for Culdesac High School, Culdesac, ID, January 30, 2015. (7 participants).

Sumobot Training. Lakeside Elementary School, Plummer, ID, January 29, 2015. (12 participants).

University of Idaho FIRST LEGO League (FLL) North State Championship Tournament, Moscow, ID, January 24, 2015 (32 teams, 205 youth, 64 adult team mentors, 45 tournament volunteers).

University of Idaho FIRST LEGO League (FLL) South State Championship Tournament, Twin Falls, ID, January 17, 2015 (44 teams, 301 youth, 90 adult team mentors, 60 tournament volunteers).

University of Idaho FIRST LEGO League (FLL) Qualifying Tournaments, 10 tournaments statewide (Kuna, Lewiston, Sandpoint, Fruitland, Idaho Falls, Boise, Coeur d'Alene, Twin Falls, Worley, and Pocatello), December 6 and 13, 2014 (148 Teams, 1017 youth, 296 adults team mentors, 350 tournament volunteers).

FIRST Season Kick-off and Game Reveal for FLL and FTC Programs, an event inviting the community to learn about robotics educational opportunities, Schweitzer Engineering Labs, Pullman, WA, September 6, 2014. (~150 participants).

WeDo Robotics and the Natural Resources Curriculum Series. CYFAR Professional Development, Moscow, ID, August 27, 2014. (6 participants).

LEGO Activities for Libraries: The LEGO WeDo for K-2 and the Sumobots for Grades 3-6, Weippe Discovery Center, Weippe, ID, July 9, 2014. (23 participants).

Leader Training in WeDo Robotics: WeDo Activities. Conducted via Webinar, June 25, 2014. (8 participants).

Sumobots: A fun competition to engage youth in engineering design. Plummer, ID, June 20, 2014. (37 participants).

Sumobots: A fun competition to engage youth in engineering design. Coeur d'Alene, ID, June 13, 2014. (25 participants).

Guiding Learning: An inquiry approach to teaching STEM. Professional Development Webinar, June 12, 2014. (12 participants).

Junk Drawer Robotics in the Classroom. Conducted via Webinar, May 9, 2014. (5 participants).

How to Host the Reading Robotics Sessions, A training for 4-H Staff and Leaders. Moscow, ID, May 2, 2014. (7 participants).

Sumobots: A fun competition to engage youth in engineering design. Moscow Junior High School Mentor Program, May 1 and May 9, 2014. (25 participants).

Leader Training in WeDo Robotics: Intro to WeDo, Programming. Six webinars conducted April-June, 2014. (37 participants).

How to Host the Reading Robotics Sessions, A training for 4-H Staff and Leaders. Plummer, ID April 4, 2014. (5 participants).

FTC Western Super-Regional Championship Tournament, Sacramento, CA, March 19-22, 2014 (72 teams from Western U.S. States, 600 youth, 200 Adults, 150 Volunteers).

The Reading Robotics Program: A literacy program using WeDo Robotics as educational tools. Latah County Library, Moscow, ID, March 4, 2014. (17 participants).

University of Idaho State FIRST Tech Challenge Championship Tournament, University of Idaho Memorial Gym, Moscow, ID, February 14-15, 2014 (34 teams, 320 youth, 72 Adults, 63 volunteers).

Next Generation Science Standards for Today's Youth and Tomorrow's Workforce - Living at the Speed of Science: and the relevance to 4-H. 4-H Virtual Professional Development Conference, January 31, 2014.

University of Idaho South Idaho FIRST LEGO League (FLL) Championship Tournament, College of Southern Idaho, Twin Falls, ID, January 25, 2014 (47 teams, 330 youth, 100 adults, 55 volunteers)

FTC: Programming in RobotC. 2-hour workshop for FTC Teams, Moscow, ID, January 14, 2014. (12 participants).

University of Idaho North Idaho FIRST LEGO League (FLL) Championship Tournament, University of Idaho, Moscow, ID, January 11, 2014 (37 teams, 215 youth, 46 adults, 43 volunteers)

9, FIRST LEGO League (FLL) Qualifying Tournaments (Sandpoint, Kellogg, Worley, Lewiston, Eagle, Twin Falls, and Idaho Falls on 12/7, in Nampa on 12/14, and in Pocatello on 12/21 (157 teams, 1,300 youth, 213 adult mentors, and 500 tournament volunteers)

Palouse Area FLL and FTC Scrimmage/Team Support, Moscow High School, Moscow, ID, November 16, 2013.

Ewers, T.G. Preparing for an FLL Tournament for Coaches, A FIRST Program Support Webinar, October 10, 2013.

GEAR UP STEM Expo, Presentation of 4 Robotics Activities for engaging youth in STEM, Coeur d'Alene, ID Fairgrounds, October 9, 2013. (20 participants).

Regional FIRST Kickoff. Presentation of the FLL and FTC Challenges, Team Support, and Local Networking, Schweitzer Engineering Labs Event Center, Pullman, WA, September 11, 2013 (Estimate 100 youth and 50 adults attended).

FIRST Season Kick-off and Game Reveal for FLL and FTC Programs, an event inviting the community to learn about robotics educational opportunities, Schweitzer Engineering Labs, Pullman, WA, September 7, 2013. (~150 participants).

University of Idaho FIRST Tech Challenge (FTC) State Championship Tournament, University of Idaho Memorial Gym, Moscow, ID, February 15-16, 2013 (33 teams, 300 youth, 100 adults, 55 volunteers)

University of Idaho South Idaho FIRST LEGO League (FLL) Championship Tournament, Canyon Ridge High School, Twin Falls, ID, January 26, 2013 (48 teams, 350 youth, 106 adults, 48 volunteers)

University of Idaho North Idaho FIRST LEGO League (FLL) Championship Tournament, University of Idaho, Moscow, ID, January 19, 2013 (37 teams, 234 youth, 55 adults, 35 volunteers)

Orofino FLL Qualifying Tournament, Orofino High School, Orofino, ID, December 15, 2012 (7 Teams, 57 youth, 9 adults, 22 volunteers)

Pocatello FLL Qualifying Tournament, Idaho State University, Pocatello, ID, December 8, 2012 (24 teams, 257 youth, 30 adults, 34 volunteers)

Idaho Falls FLL Qualifying Tournament, University Place, Idaho Falls, ID, December 8, 2012 (20 teams, 177 youth, 18 adults, 34 volunteers)

Meridian FLL Qualifying Tournament, Renaissance High School, Meridian, ID, December 8, 2012 (24 teams, 198 youth, 25 adults, 34 volunteers)

Sandpoint FLL Qualifying Tournament, Sandpoint High School, Sandpoint, ID, December 8,

2012 (30 teams, 236 youth, 35 adults, 41 volunteers)

Twin Falls FLL Qualifying Tournament, Herrett Center for Science and Arts, Twin Falls, ID, December 1, 2012 (15 teams, 156 youth, 13 adults, 34 volunteers)

Nampa FLL Qualifying Tournament, Columbia High School, Nampa, ID, December 1, 2012 (10 teams, 95 youth, 11 adults, 22 volunteers)

Kellogg FLL Qualifying Tournament, Kellogg High School, Kellogg, ID, December 1, 2012 (12 teams, 101 youth, 13 adults, 22 volunteers)

Worley FLL Qualifying Tournament, Camp 4-Echoes Girl Scout Camp, Worley, ID, December 1, 2012 (12 teams, 93 youth, 12 adults, 22 volunteers)

Idaho FIRST Tech Challenge (FTC) Scrimmage Tournament, College of Southern Idaho, Twin Falls, ID, November 17, 2012 (4 teams, 35 youth, 21 adults)

The FIRST Programs Open House-Season Kickoff, Kroc Center, Coeur d'Alene, Idaho in collaboration with Time Warner Cable, August 9, 2012.

The 4-H Robotics Platforms Curriculum: A webinar hosted by National 4-H Council for 4-H Professionals, July 18, 2012. (16 participants).

FIRST LEGO League (FLL) Training for Time Warner Cable Staff. Coeur d'Alene, ID, June 27, 2012. (10 participants).

Using GPS and GIS, a workshop for 4-H youth, conducted at the Ada County Extension Office, June 14-15, 2012. (20 participants).

FIRST LEGO League (FLL) Training for Time Warner Cable Staff. Moscow, ID, May 31, 2012. (9 participants).

Idaho 4-H Robotics Open House. Hands-on Display of the 4-H and FIRST robotics activities, open to the general public. Ada County Boys & Girls Club, Boise, ID, April 13, 2012.

Idaho 4-H Robotics Open House. Hands-on Display of the 4-H and FIRST robotics activities, open to the general public. Nez Perce County Fairgrounds, Lewiston, ID, April 11, 2012.

Building and Planning a Robotics Program. A training in robotics and curriculum for educators at the Palouse Discovery Science Center, Pullman, Washington, March 30, 2012. (12 participants).

The Idaho 4-H Tech Wizards Program: A Training for Teachers about how to build and program robots using LEGO WeDo and LEGO Mindstorms. Mountain Home Air Force Base, Mountain Home, Idaho, March 21, 2012. (8 participants).

The Idaho 4-H Tech Wizards Program: A Training for Site Administrators and Teachers about the program. Mountain Home Air Force Base, Mountain Home, Idaho, March 6, 2012. (6 participants).

The FIRST Programs Open House-Season Kickoff, Kenworthy Theater, Moscow, Idaho in collaboration with Time Warner Cable, September 8, 2012.

University of Idaho State FIRST Tech Challenge (FTC) Championship Tournament, Moscow, ID February 11, 2012 (28 teams, 211 youth, 54 adults)

University of Idaho State FIRST LEGO League (FLL) Championship Tournament, Moscow, ID, December 17, 2011 (59 teams, 347 youth, 97 adults)

Spirit Lake FIRST LEGO League (FLL) Qualifying Tournament, Timberlake High School, Spirit Lake, ID, November 19, 2011 (11 teams, 88 youth, 18 adults)

Sandpoint FIRST LEGO League (FLL) Qualifying Tournament, Sandpoint High School, Sandpoint, ID, November 19, 2011 (18 teams, 134 youth, 28 adults)

Orofino FIRST LEGO League (FLL) Qualifying Tournament, Orofino High School, Orofino, ID, November 19, 2011 (9 teams, 57 youth, 13 adults)

Meridian FIRST LEGO League (FLL) Qualifying Tournament, Renaissance High School, Meridian, ID, November 19, 2011 (19 teams, 103 youth, 34 adults)

Pocatello FIRST LEGO League (FLL) Qualifying Tournament, Idaho State University, Pocatello, Idaho, November 19, 2011 (23 Teams, 162 youth, 46 adults)

Camp 4 Echoes FIRST LEGO League (FLL) Qualifying Tournament, Camp 4 Echoes Girl Scout Camp, Worley, ID, November 12, 2011 (9 Teams, 56 youth, 10 adults)

Kellogg FIRST LEGO League (FLL) Qualifying Tournament, Sunnyside Elementary School, Kellogg, ID, November 12, 2011 (9 Teams, 60 youth, 16 adults)

McCall FIRST LEGO League (FLL) Qualifying Tournament, McCall High School, McCall, ID, November 12, 2011 (7 Teams, 52 youth, 8 adults)

Nampa FIRST LEGO League (FLL) Qualifying Tournament, Columbia High School, Nampa, ID, November 12, 2011 (16 Teams, 83 youth, 25 adults)

Blackfoot FIRST LEGO League (FLL) Qualifying Tournament, Idaho Science & Technology Charter School, Blackfoot, ID, November 12, 2011 (18 Teams, 121 youth, 33 adults)

Twin Falls FIRST LEGO League (FLL) Qualifying Tournament, Herrett Center for Arts and Science, Twin Falls, ID, November 5, 2011 (12 Teams, 95 youth, 15 adults)

University of Idaho, Idaho ROKS *FIRST* Tech Challenge (FTC) Championship Tournament, Moscow, ID, February 11-12, 2011 (24 teams, 140 youth)

The 4-H Robotics Curriculum and the LEGO Mindstorms Platform: An Introduction to 4-H Professionals, a Competency Building Workshop. National Association of Extension 4-H Agents (NAE4-HA) National Conference, Omaha, NE, October 26, 2011. (30 participants).

Sumobot Challenge at UI Ag Days: How to build, program, and compete with a LEGO sumobot, UI Moscow, ID, October 7, 2011. (24 participants).

Robotics Training for Idaho 4-H Tech Wizards FLL Teams, a 1-day workshop on advanced programming and preparing for an FLL tournament, Homedale, ID, September 23, 2011. (7 participants).

LEGO WeDo Activities, a 2-hour webinar/training for 4-H Staff/Leaders to implement LEGO WeDo Robotics Programs in their counties, conducted as 3 individual trainings via telephone and webinar in September 2011. (3 participants).

Using the LEGO WeDo System, a 2-hour webinar/training for 4-H Staff/Leaders to learn how to build and program LEGO WeDo robots, August 31, 2011. (7 participants).

The 4-H Robotics Curriculum. This was a hands-on overview of the curriculum with a follow-up discussion about adapting it for use in UI College of Education summer workshops in 2012, included 5 UI College of Education faculty and staff, UI Moscow, ID, August 8, 2011. (4 participants).

WeDo and Mindstorms Robotics: An introduction to the LEGO systems for a new 4-H club, 7 youth and 1 adult, Colfax, WA, July 21, 2011. (8 participants).

Teamwork & Communications in Engineering: Using WeDo Robotics Storytelling to Develop Teamwork and Communication Skills, 2, 2-hr sessions at the UI JEMS (Junior Engineers Mathematicians and Scientists) Summer Workshop for gifted high school students, 30 youth, UI Moscow, ID, July 12, 2011. (30 participants).

The 4-H Tech Wizards Sumobot Challenge for the Farmway Village Latino Community. 7-hour program including 32 youth ages 5-14 and 7 adults, Caldwell, ID, June 18, 2011. (32 participants).

The Sumobot Challenge, a robotics challenge for 4-H Teen Conference. 2, 3-hour sessions including 12 teens and 2 adult leaders, UI Campus, Moscow, ID, June 15-16, 2011. (14 participants).

WeDo Storytelling, a 5-week course for grades K-3 using the LEGO WeDo Robotics System, conducted at Palouse Prairie Charter School, Moscow, ID, April 13 – May 11, 2011. (23 participants).

WeDo Robotics: An Introduction for the Coeur d'Alene Tribal School, 2, 1.5-hour sessions, for 3 teachers and 13 youth, Worley, ID, April 19, 2011 and April 21, 2011. (16 participants).

Idaho 4-H Tech Wizards Training. A training for staff and teen leaders to conduct the Idaho 4-H Tech Wizards Program with special session on the FLL program and LEGO Mindstorms system, (6 Adults; 18 youth), Caldwell, ID, March 28, 2011. (24 participants).

Idaho 4-H Tech Wizards Training. A training for staff and teen leaders to conduct the Idaho 4-H Tech Wizards Program with special session on the FLL program and LEGO Mindstorms system, (3 Adults; 5 Teens), Homedale, ID, March 22, 2011. (8 participants).

Robotics in Education, Guest Lecturer in University of Idaho, EDCI-201, Dr. Deanna Gilmore, Course Instructor, March 2, 2011.

LEGO Mindstorms: Building, Programming, and Overview of Resources. A training for 4-H Staff, Leaders, and Coaches, (23 Adults), Caldwell, ID, January 20, 2011. (23 participants).

University of Idaho, Idaho ROKS *FIRST* LEGO League (FLL) State Championship Tournament, Kuna High School, Kuna, ID, December 11, 2010.

Kellogg *FIRST* LEGO League (FLL) Qualifying Tournament, Sunnyside Elementary School, Kellogg, ID, December 4, 2010.

Idaho Falls *FIRST* LEGO League (FLL) Qualifying Tournament, Sand Creek Middle School, Ammon, ID, December 4, 2010.

North Idaho *FIRST* LEGO League (FLL) Qualifying Tournament, Post Falls High School, Post Falls, ID, November 20, 2010.

Nampa *FIRST* LEGO League (FLL) Qualifying Tournament, Columbia High School, Nampa, ID, November 20, 2010.

Meridian *FIRST* LEGO League (FLL) Qualifying Tournament, Renaissance High School, Meridian, ID, November 13, 2010.

Pocatello *FIRST* LEGO League (FLL) Qualifying Tournament, Idaho State University, Pocatello, ID, November 13, 2010.

Twin Falls *FIRST* LEGO League (FLL) Qualifying Tournament, Herrett Center for Arts and Science, Twin Falls, ID, November 6, 2010.

Mountain Home Air Force Base, Operation: Military Kids Robotics Camp, Mountain Home, ID, (4 adults, 40 youth), June 21-25, 2010

4-H WeDo Robotics. Program to train 4-H teens to use the LEGO WeDO system and build robotics clubs through their county extension offices. Idaho 4-H Teen Conference, Moscow, ID, (10 youth), June 15-16, 2010

Ewers, TG, Toomey, M., & Norland, I. Life Skill Evaluation: Tweaking our understanding and process, statewide webinar for professional staff, June 2-3, 2010. (45 participants).

NXT-G for Robots: Medium to advanced programming language. Workshop to advance programming capabilities for 4-H robotics leaders, Boise, ID, (24 adults), May 1, 2010

FIRST World Championship Game Coordination, *FIRST* World Championship, Atlanta, GA, April 13-17, 2010

Affiliate Partner and Program Director, Idaho *FIRST* Tech Challenge (FTC) Regional Championship, (21 teams from the northwest), Moscow, ID, February 13, 2010

Operational Partner and Director of the Idaho ROKS Program. Idaho ROKS *FIRST* LEGO League State Championship Tournament, 68 Teams, Pocatello, ID, January 16, 2010

Operational Partner and Director of the Idaho ROKS Program. Idaho Falls *FIRST* LEGO League (FLL) Qualifying Tournament, 28 teams, Idaho Falls, ID December 12, 2009

Operational Partner and Director of the Idaho ROKS Program. Southwest Idaho *FIRST* LEGO League (FLL) Qualifying Tournament, 48 teams, Meridian, ID December 12, 2009

Operational Partner and Director of the Idaho ROKS Program. North Idaho *FIRST* LEGO League (FLL) Qualifying Tournament, 60 teams, Post Falls, ID December 5, 2009

Operational Partner and Director of the Idaho ROKS Program. Pocatello *FIRST* LEGO League (FLL) Qualifying Tournament, 42 teams, Pocatello, ID December 5, 2009

FIRST Tech Challenge and Robotics for High School. University of Idaho Professional, Technical Educators Fall In-Service Training, Moscow, ID, October 24, 2009

Geospatial Mapping Activities – Intro to GIS, Ag. Days at the University of Idaho, (3 adults, 11 youth), October 3, 2009

GPS and Geocaching, Ag. Days at the University of Idaho, (5 adults, 13 youth), October 2, 2009

FIRST Tech Challenge World Championship, Atlanta, GA, April 15-18, 2009

Robotics Day Camp, Palouse Discovery Science Center, Pullman, (14 middle school youth) Washington, July 20-24, 2009

Robotics Day Camp, Lapwai Summer School (14 Native American Youth), June 22-25, 2009

Robotics Day Camp, 4-H Teen Conference, Moscow, ID, (12 youth), June 9-10, 2009

The Idaho Robotics Opportunities for K-12 Students (Idaho ROKS) Program. Presentation detailing the business plan and growth management of *FIRST* LEGO League (FLL) in Idaho. *FIRST* LEGO League (FLL) Operational Partners' Annual Conference, Manchester, N.H., May 19-21, 2009

Elementary Robotics: A robotics day camp for 4th-6th Graders, Ramsey Elementary School, Coeur d'Alene, ID, (63 youth), May 11-12, 2009

Promoting Interest in Science and Engineering through Robotics. University of Idaho Leadership Workshop for Undergraduates. Moscow, ID April 4, 2009

4-H Robotics Day-Camp, Eggan Youth Center, (12 youth) Moscow, ID, April 3, 2009

Using the LEGO Mindstorms Kit for After-school Activities, (8 adults), Plummer, ID, March 26, 2009

Affiliate Partner and Program Director, Idaho *FIRST* Tech Challenge (FTC) Regional Championship, established the first FTC program in Idaho; hosted 12 high school teams from the northwest at the University of Idaho, February 21, 2009

Program Director, Idaho State *FIRST* LEGO League Championship, 64 teams of middle school youth from Idaho and Utah, University of Idaho, Moscow, Idaho, January 17, 2009.

Co-Program Director, Southwest Idaho *FIRST* LEGO League Qualifying Tournament, 19 teams of middle school youth, Mountain View High School, Meridian, Idaho, December 13, 2008

Program Director, North Idaho *FIRST* LEGO League Qualifying Tournament, 41 teams of middle school youth, Lakeland High School, Rathdrum, Idaho, December 6, 2008

Affiliate Partner, Southeast Idaho *FIRST* LEGO League Qualifying Tournament, 43 teams of middle school youth, Idaho State University, Pocatello, Idaho, December 6, 2008

The Idaho Robotics Opportunities for K-12 Students Program. Idaho Science Teachers' Association, Idaho Falls, ID, October 1-3, 2008

The *FIRST* LEGO League Program. Galaxy III, Indianapolis, IN, September 14-18, 2008

FIRST LEGO League Coaches' Training, Ada County Extension Office, Boise, ID, (14 adults), September 6, 2008

Robotics Day Camp. Palouse Discovery Center, Pullman, WA, (12 youth), July 7-11, 2008.

You Can Learn a Lot from a Robot, Chatcolab, Camp Twinlow, Rathdrum, ID, (6 adults, 6 youth), June 15-19, 2008

Introduction to LEGO Robotics. 4-H Teen Conference, Moscow, ID, (10 youth), June 10-11, 2008

4-H and FLL Robotics, Ada County Extension Office, Boise, ID, (2 adults, 10 youth), June 5-7, 2008

The 4-H Robotics Program, Leader Training, Lewis County Extension Office, (3 adults), April 21, 2008

Teamwork Judge, *FIRST* LEGO League World Festival, 84 teams from 44 countries, Atlanta, Georgia, April 16-20, 2008

4-H Robotics Day-Camp, Eggan Youth Center, Moscow, ID, (12 youth), April 4, 2008

Shaklee, H, & Ewers, TG. Block Building – It's Not Just for Preschoolers Anymore. University of Idaho Extension Annual Conference, Boise, Idaho, April 1-3, 2008

Ewers, TG. Developing Life Skills Through LEGO Robotics. Kootenai/Shoshone 4-H Souper Saturday, Lakeside High School, Rathdrum, Idaho, February 23, 2008

The 4-H Robotics Program, Orofino, ID, (1 adult, 8 youth), February 2, 2008

Idaho *FIRST* LEGO League State Championship, 34 teams of middle school youth, Sawtooth Middle School, Meridian, Idaho, January 26, 2008

North Idaho *FIRST* LEGO League Qualifying Tournament, 15 teams, December 1, 2007

South Idaho *FIRST* LEGO League Qualifying Tournament, 40 teams, December 1, 2007

FIRST LEGO League, Team Training, 3, 2-hr. sessions at River City Middle School (1 teacher and 7 children), Mullan Elementary (1 teacher, 6 children), and Ponderosa Elementary (1 teacher, 5 children), Post Falls, ID, Oct. 10, 2007

FIRST LEGO League, Coaches' Training, 4-hr. session, Pleasant Valley School, Owyhee County Idaho, (2 adults), Oct. 3, 2007

Ewers, TG. Science, Engineering, and Technology: Getting SET in Idaho 4-H. Idaho Statewide 4-H Training, Caldwell, ID, Oct. 1, 2007

Where Y'at: Introduction to GPS, Ag. Days at the University of Idaho, (3 adults, 12 youth) September 28, 2007

LEGO Robotics at the 4-H Youth Activity Camp, Whitman Elementary School, Lewiston, ID, (15 youth), August 8-10, 2007

The New NXT LEGO Mindstorms Kit and the 2007 FLL Challenge, Team Training for Nial Yager's 4-H Team, Moscow, ID, (2 adults, 5 youth), July 27, 2007

GPS Treasure Hunt, CL2N 4-H Summer Camp, Camp Wooten, WA, (45 youth), July 14-15, 2007

4-H Robotics Summer Camp, Ada County Extension, Boise, ID, (12 youth), June 25-29, 2007

GPS: The Global Positioning System, Chatcolab, Camp Twinlow, Rathdrum, ID, (7 adults, 5 youth), June 9-15, 2007

Idaho 4-H Teen Conference, Moscow, Idaho. GPS Activities and Introduction to Community Mapping, (10 youth), June 2007

Running a Space Camp in a Summer Youth Program, a training session for the Moscow Adventure Club Staff, Moscow, ID, (7 adults), May 24, 2007

The New NXT LEGO Mindstorms Kit, Overview and Software Training, Rathdrum, ID, (5 teachers), May 10, 2007

The *FIRST* LEGO League Program, an interactive display of the FLL Ocean Odyssey Field setup at the IdahoTECH: Mars Rover Competition, Moscow Junior High School, Moscow, ID, May 5, 2007

Program Director, South Idaho *FIRST* LEGO League Tournament, 4 teams, Buhl Junior High School, Buhl, Idaho, April 21, 2007

Developing Life Skills through LEGO Robotics, NCIA Super Saturday, Lewiston, ID April 14, 2007

Ewers, TG. Geospatial Activities through 4-H, NCIA Super Saturday, Lewiston, ID, April 14,

2007

Ewers, TG. 4-H Robotics, NCIA Super Saturday, Lewiston, Idaho, April 14, 2007

4-H Youth Development Promoting Science and Engineering through LEGO Robotics, Poster at University of Idaho Cooperative Extension System Annual Conference, Moscow, ID, April 10-12, 2007

Program Director, North Idaho *FIRST* LEGO League Tournament, 6 teams, Lena Whitmore Elementary School, February 3, 2007

The 4-H Experience and the Vital Role of the Volunteer, Lewis County 4-H, Craigmont, ID, February 26, 2007

FIRST LEGO League Team Training, McSorley Elementary School, Lewiston, ID, (2 adults, 22 youth), January 31, 2007

FIRST LEGO League Officials' Training (Judges and Referees), 3-hr training session on the FLL program, and the roles and responsibilities of the FLL Judges and Referees, Moscow, ID, (15 adults), January 29, 2007

FIRST LEGO League Team Training, 2 sessions, McSorley Elementary School (1 teacher, 9 youth) and Webster Elementary School (2 adults, 7 youth), Lewiston, ID, January 6, 2007

FIRST LEGO League Coaches' Training, McSorley Elementary School, Lewiston, ID, (7 adults), January 4, 2007

GPS/GIS Applications in the Secondary Science Classroom, University of Idaho undergraduate course, Secondary Science Methods, EDCI 433, November 14, 2006, Guest Lecturer

The Idaho *FIRST* LEGO League Program, a poster and table-top display of LEGO Robotics and curriculum materials, Idaho Science Teachers Association Annual Meeting, Eagle, ID, October 5-6, 2006

Introduction to GPS/GIS, Ag. Days at the University of Idaho, (2 adults, 12 youth), September 15, 2006

Robotics Activities through Idaho 4-H. A display at the Latah County Fair, September 13-17, 2006

Idaho 4-H Teen Conference, Moscow, Idaho, Introduction to LEGO Robotics, (10 youth), May, 2006

Idaho 4-H Teen Conference, Moscow, Idaho, GIS/GPS technologies, (10 youth), May, 2006

Physics Days at Silverwood Amusement Park. Introduction to LEGO Robotics, Athol, ID, May, 2006

Physics Days at Silverwood Amusement Park. Introduction GPS, Athol, ID, May, 2006

LEGO Robotics: Problem Solving Made Fun, 4-H State Leaders' Forum, Boise, ID, (16 adults), November 11, 2006

GIS/GPS: What it is and what it can do for your activities and programs, 4-H State Leaders' Forum, Boise, ID, (14 adults), November 10, 2006

FIRST LEGO League: The Ocean Odyssey Challenge. A Coach and team training for the two

teams coached by Cynda Hyndman, McSorley Elementary School, Lewiston, ID, (1 adult, 9 youth), November 9, 2006

FIRST LEGO League: The Ocean Odyssey Challenge. A Coach and team training for Chris Cooney's Team. Moscow, ID, (1 adult, 3 youth), November 3, 2006

FIRST LEGO League: The Ocean Odyssey Challenge. A Coach and team training for Nial Yager's Team. Moscow, ID, (1 adult, 5 youth), October 17, 2006

Introduction to LEGO Mindstorms and *FIRST* LEGO League; a presentation/workshop to the leader, parents and children of the Mountain View 4-H Club, Moscow, ID, (7 adults, 15 youth), September 24, 2006

Introduction to LEGO Mindstorms and *FIRST* LEGO League, Lakeland School District, Rathdrum, ID, (5 teachers), October 14, 2006

Introduction to Robotics, Molly Pannkuk's Grade 6 Class, Lena Whitmore Elementary School, Moscow, ID, (23 youth), Fall Semester, 2006

Introduction to LEGO Mindstorms, Valley County 4-H Club, (1 adult, 6 children), Cascade, ID, September 30, 2006

Robotics Day Camp, Moscow Adventure Club, Lena Whitmore Elementary School, (18 children), Moscow, ID, August 23-25, 2006

Robotics Day Camp, Mobius Museum, (17 children), Spokane, WA, August 2, 2006

Robotics Day Camp, 4-Day Workshop, (18-23 children daily), Deary, ID, July 17-20, 2006

Fun with LEGO Robotics, A 1-week workshop to learn to use the LEGO Mindstorms Kit, Kids Klub, 2 sessions, (35-40 children total daily), Grangeville, ID, July 10-14, 2006

Space Camp, Moscow Adventure Club, 2-week summer camp for 80 youth ages 8-12, Moscow, ID, Summer 2006.

Effective Use of Calculators in the Classroom, EETT Mathview Teacher Training, Grangeville, ID, (12 teachers), May 19-20, 2006

Introduction to LEGO Robotics, 4-H Teen Conference, Moscow, ID, (10 youth), May 2006

Introduction to GIS/GPS Technologies, 4-H Teen Conference, Moscow, ID, (12 youth), May 2006

The Small Engines CCS Curriculum, 4-H State Leaders' Forum, Post Falls, ID, (14 adults), October 2005

Concept Mapping: Applications in Astrobiology. A session at an Astrobiology workshop for K-12 teachers, Honolulu, HI, June 2005

Physical Science for Elementary and Middle School Teachers, a two-week summer camp for K-12 teachers, Rathdrum, ID, (15 teachers), June 2004

Idaho Quest, annual weeklong summer science camp for gifted and talented middle-school children from Idaho, Annually 1999-2004.

Extended Experiences in Mathematics for Upper Elementary Students (including problem solving and mathematical modeling), McDonald Elementary School, Grades 5-6, 15, 1-hr. sessions, 2002-2003

Classroom Assessment for Mathematical Performance, 3 one-week workshops for K-8 Teachers in June, July, August 2002

Science Days, Garfield-Palouse School, Palouse, Washington, 2000-2003

Using Math Assessments to Learn about the Learners, Idaho Math Academy, Moscow, ID, July 2003 (Idaho State Department of Education w/ Susan Harrington)

Environmental Education: Field Studies using GLOBE. Numerous elementary schools throughout Idaho, McCall Outdoor Science, 2003-2004

Global Learning and Observation to Benefit the Environment, Teacher Workshops in: Twin Falls ID 1998, West Chester PA 1999, Moscow ID 1998-2003, Coeur d'Alene ID 2000, Santa Barbara CA 2000, West Chester PA 2000, Orlando, FL 2000

Honors and Awards:

Susan Barkman Award for Research and Evaluation, for the Youth Retention Study, National Association of Extension 4-H Youth Development Professionals, October, 2020.

Excellence in STEM, for the Dabble in Dissection Curriculum, Idaho Association of Extension 4-H Professionals, 2020.

Excellence in Volunteerism for the Idaho 4-H Animal Science Lesson Plans, Idaho Association of Extension 4-H Professionals, 2020.

Educational Package Award for the Idaho 4-H Staff Orientation Guide, Idaho Association of Extension 4-H Professionals, 2020.

Excellence in Teamwork National Award, Presented by the National Association of Extension 4-H Agent, 2017.

Excellence in Teamwork Regional Award, Presented by the Western Region of the National Association of Extension 4-H Agents, 2017

Palouse Region S.T.A.R. Award, Presented by the Moscow Chamber of Commerce, 2013

College of Education NFE Award for Excellence, 2003

NASA Opportunities for Visionary Academics Fellow, Fall 1999, Spring 2000

SCHOLARSHIP ACCOMPLISHMENTS:

Publications:

Refereed:

Baumgartner, R.M., & Ewers, T.G. (2020). Parts Organization System for the New LEGO SPIKE Prime Robotics Set. Journal of Extension accepted and in the queue.

Ewers, TG, Nash S, Ruth, A., & Piaskowski, J. (2020). Lesson Plan Helps Volunteers Improve Learning Among 4-H Youths in Animal Projects. Journal of Extension [On-line],58(3) Article v58-3br3. Available at: <https://joe.org/joe/2020june/rb3.php>

Lewis, KM, Ewers, TG, Bird, M, & Wilkins, T (2019). Engage Stakeholders in Program Evaluation: Throw Them a Party! Journal of Extension [On-line], 57(4) Article 4IAW5. Available at: <https://www.joe.org/joe/2019august/iw5.php>

Lewis, KM, Ewers, TG, Miller, JC, Bird, M, Borba, J, Hill RD, Rea-Keywood, J, Shelstad, N, & Trzensniewski, K. (2018). Addressing Retention in Youth Programs: A Survey for Understanding

Families' Experiences. *Journal of Extension* [On-line], 56(3) Article 3TOT3. Available at: <https://www.joe.org/joe/2018june/tt3.php>.

Dolecheck, SH, & Ewers, TG (2017). Organizational System for the LEGO WeDo 2.0 Robotics System. *Journal of Extension* [On-line], 55(6) Article 6TOT10. Available at: <https://joe.org/joe/2017december/tt10.php>.

Ewers, TG, (2014). LEGO Parts Organization for the New Mindstorms EV3. *Journal of Extension* [On-line], 52(6) Article 6TOT9. Available at: <http://www.joe.org/joe/2014december/tt9.php>.

Ewers, TG. (2012). LEGO Parts Organization – Ugh!! *Journal of Extension* [On-line], 51(3) Article 3TOT9. Available at: <http://www.joe.org/joe/2013june/tt9.php>.

Ewers, TG, & Dawes, K. (2012). No More Missing LEGO Parts: A Simple Inventory System that Works! *Journal of Extension* [On-line], 51(4) Article 4TOT5. Available at: <http://www.joe.org/joe/2013august/tt5.php>.

Ewers, TG. (2010). Idaho Robotics Opportunities for K-12 Students: A K-12 Pipeline of Activities Promoting Careers in Science, Engineering, and Technology. *Journal of Extension*, 2010; 48(1). [On-line], 48(1) Article 1IAW2. Available at: <http://www.joe.org/joe/2010february/iw2.php>.

Odell, M., Badger, S. Kennedy, T., Ewers, T. Klett, M., (2004). Integrating Information Technology into Undergraduate Science, In D.W. Sunal, E. L. Wright, & J. Bland (Eds.), *Research in Science Education: Reform in Undergraduate Science Teaching for the 21st Century* Greenwich, CT : Information Age Publishing Inc.

Kelly G, Ewers TG, Proctor L. (2002). Developing Spatial Sense: Comparing Appearance to Reality. *Mathematics Teacher*. *Mathematics Teacher* 2002;95(9):702-12.

Alexander BH, Checkoway H, Faustman EM, van Netten C, Muller CH, Ewers TG. Contrasting Associations of Blood and Semen Lead Concentrations with Semen Quality Among Lead Smelter Workers. *American Journal of Industrial Medicine* 1998;34(5):464-9.

Alexander BH, Checkoway H, van Netten C, Muller CH, Ewers TG, Kaufman JD, Mueller BA, Vaughan TL, Faustman, EM. Semen Quality of Men Employed at a Lead Smelter. *Occupational and Environmental Medicine* 1996;53:411-6.

Silber JR, Mueller BA, Ewers TG, Berger MS. Comparison of O6-methylguanine-DNA Methyltransferase Activity in Brain Tumors and Adjacent Normal Brain. *Cancer Research* 1993;53(14):3416-20.

Silber JR, Bobola MS, Ewers TG, Muramoto M, Berger MS. O6-alkylguanine DNA-Alkyltransferase is not a Major Determinant of Sensitivity to 1,3-bis(2-chloroethyl)-1-nitrosourea in Four Medulloblastoma Cell Lines. *Oncology Research* 1992;4(6):241-8.

Peer Reviewed/Evaluated:

Extension Publications:

Shelstad, N., T. Ewers, D. Gillespie, J. Lindstrom, N. Melville, S. Nash, J. Wilson (co-authors), "New 4-H Staff Orientation Guide", University of Idaho, 2019. ECS 012. <https://www.uidaho.edu/extension/4h/people/securefolder/staff>.

Ewers, TG, Switzer G, & Freirichs, SD (2010). "Build a Bot," Robotics Platforms Lesson 1, 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Switzer, G, & Ewers, TG (2010). Robotics Notebook Guide for "Build a Bot," 4-H Robotics: 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG (2010). 4-H Robotics Facilitator's Guide: Build a Bot. 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG, Switzer G, & Freirichs, SD (2010). "Buddy Bot: Introduction to Robot Programming," Robotics Platforms Lesson 2, 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Switzer, G, & Ewers, TG (2010). Robotics Notebook Guide for "Buddy Bot: Introduction to Robot Programming," 4-H Robotics: 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG (2010). 4-H Robotics Facilitator's Guide: Buddy Bot: Introduction to Robot Programming. 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG, Switzer G, & Freirichs, SD (2010). "Go Bot Go," Robotics Platforms Lesson 3, 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Switzer, G, & Ewers, TG (2010). Robotics Notebook Guide for "Go Bot Go," 4-H Robotics: 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG (2010). 4-H Robotics Facilitator's Guide: Go Bot Go. 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG, Switzer G, & Freirichs, SD (2010). "Pick It Up," Robotics Platforms Lesson 4, 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Switzer, G, & Ewers, TG (2010). Robotics Notebook Guide for "Pick It Up," 4-H Robotics: 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG (2010). 4-H Robotics Facilitator's Guide: Pick It Up. 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG, Switzer G, & Freirichs, SD (2010). "Save The Cow," Robotics Platforms Lesson 5, 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

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4-H Robotics: 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

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Ewers, TG, Switzer G, & Freirichs, SD (2010). "Using Sensors," Robotics Platforms Lesson 8, 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

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Ewers, TG (2010). 4-H Robotics Facilitator's Guide: Using Sensors. 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG, Switzer G, & Freirichs, SD (2010). "Programming Decisions with Sensor Input," Robotics Platforms Lesson 9, 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

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Ewers, TG (2010). 4-H Robotics Facilitator's Guide: Programming Decisions with Sensor Input. 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

Ewers, TG, Switzer G, & Freirichs, SD (2010). "Decisions within Decisions," Robotics Platforms Lesson 10, 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

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Ewers, TG (2010). 4-H Robotics Facilitator's Guide: Decisions within Decisions. 4-H Robotics: Engineering for Today and Tomorrow. 2010. National 4-H Curriculum.

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Refereed/Adjudicated (currently scheduled or submitted):

Miller, JC, Ewers, TG, & Rea Keywood, J. (2019). "Parental Experience in 4-H and its Effect on Youth Re-enrollment." Submitted to the Journal of Youth Development.

Peer Reviewed/Evaluated Curricula (currently scheduled or submitted):

Book Chapters:

Graves, S., Odell, M., Ewers, T. & Ophus, J. (2004). "A Model for Reform in Teaching Integrated Science: Promoting Scientific Literacy Among Undergraduate Non-Science Majors." In: Reform in Undergraduate Teaching for the 21st Century, pp 477-491, Editors: Dennis W. Sunal, Emmett L. Wright, & Jeanelle Bland Day. Information Age Publishing.

Other:

Impact Statements:

Dalton, N., Johnson, C., Dolecheck, S., & Ewers, T. (2020). Parliamentary Procedures Training Proves to Positively Impact 4-H Meetings. Online at:

<https://www.uidaho.edu/extension/about/impacts>

Gillespie, D.R., Dolecheck, S., Dalton, N., Johnson, C., Scott, D., Wittman, G., Jefferies, E., Codr, S. Ewers, T.G., Settlege, B., & Schmidt, J. (2020). 2020 Idaho 4-H State Teen Association Convention: A Virtual and Vibrant Change. Online at:

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Ruth, A., Dolecheck, S., Dalton, N., Ewers, T., Hosking, L., & Lampe, E. (2020). Youth in Idaho and Oregon are Learning to “Dabble in Dissection”. Online at:

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Shelstad, N., Wilson, J., Nash, S., Gillespie, D., Ewers, T., Lindstrom, J., & Schwarting, D. (2020). New 4-H Staff Orientation Guide Provides Foundation for Quality Programming. Online at: <https://www.uidaho.edu/extension/about/impacts>

Dalton, N., Johnson, C., Ewers, T.G., Gillespie, D.R., Dolecheck, S., Scott, D., Codr, S., & Jefferies, E. (2019). Idaho 4-H STAC Positively Impacts College and Career Readiness. Online at: <https://www.uidaho.edu/extension/about/impacts>

Johnson, C., Dalton, N., Ewers, T.G., & Gillespie, D.R. (2019). Idaho 4-H Know Your Government Conference Has a New Evaluation. Online at:

<https://www.uidaho.edu/extension/about/impacts>

Dalton, N.M., Ewers, T.G., & Luckey, B.P. (2019). Idaho’s 4-H Program Develops Positive Attitudes Towards Science. Online at:

<http://www.uidaho.edu/extension/about/impacts>

Jefferies, E., Gillespie, D.R., Ewers, T.G., Toomey, M., Nash, S., Wilson, J., Wittman, G., Silkwood, G., & Loftus, K. (2018). Quality curriculum counts. Online at:

<http://www.uidaho.edu/extension/about/impacts>

Young, M.K., Ewers, T.G., & Dolecheck, S.H. (2016). Robotics Education in Rural Schools Promoted by 4-H School Enrichment. Online at:

<http://www.uidaho.edu/extension/about/impacts>

Ekins, J. & Ewers, T.G. (2015). IdahoH20 and 4-H Urban Interface increase natural resources education offerings. Online:

http://www.extension.uidaho.edu/impacts/Pdf_15/21-15jekins-idaho2o.pdf

Wittman, G., Ewers, T., & Toomey, M. (2009). 4-H Afterschool Shows Impact on Life Skills. Online: http://www.extension.uidaho.edu/impacts/Pdf_09/62-09gwittman-life.pdf

Ewers, T. (2009). Idaho ROKS: Motivating Youth Toward Science, Engineering, and Technology Careers. Online: http://www.extension.uidaho.edu/impacts/Pdf_09/14-09tewers-roks.pdf

Ewers, T. (2007). 4-H Youth Development Promoting Science and Engineering Through LEGO Robotics. Online: http://www.extension.uidaho.edu/impacts/Pdf_07/4-07tewers-robotics.pdf

Abo, B., & Ewers, T., (2006), Sharing Strategies for Success. Online:

http://www.extension.uidaho.edu/impacts/Pdf_06/25-06babo-sharing.pdf

Invited Presentations (International):

Ewers, T.G., Dostal, C., Sloan Schroeder, C., & Swayne, N. Navigating University Support for

FIRST Programs. FIRST Partner Conference, Southern New Hampshire University, Manchester, N.H., June 8-11, 2015.

Ewers, T.G. The 4-H Program and FIRST: A presentation introducing FLL Partners to the 4-H Program. Conducted at the FIRST Partner Conference, Manchester, N.H., June 6, 2012.

Ewers, T.G. Land Grant Universities, Extension Education, and FIRST, FLL and FTC Partner Conference, Manchester, New Hampshire, June 5-11, 2011.

Faustman EM, Ewers TG. The Department of Energy's Risk Data Sheet: A Tool for Evaluating Risks Across the Nuclear Weapons Complex. Society for Risk Analysis and International Society of Exposure Analysis, New Orleans, Louisiana, December 8-12, 1996.

Muller CH, Checkoway H, Alexander BH, van Netten C, Ewers TG, Faustman EM. Sperm Function and Motility Tests among Workers at a Lead Smelter. International Congress of Toxicology - VII, Seattle, Washington, July 2-6, 1995.

Alexander BH, Checkoway H, van Netten C, Muller CH, Ewers TG, Faustman EM. Semen Quality of Men Employed at a Lead Smelter, International Congress of Toxicology - VII, Seattle, WA, July 2-6, 1995.

Alexander BH, Checkoway H, van Netten C, Muller CH, Ewers TG, Faustman EM. Sperm Count, Morphology, and Motility among Primary Lead Smelter Workers. International Symposium of Epidemiology in Occupational Health, Milan - Como, Italy, September 20-23, 1994.

Faustman EM, Alexander BH, Checkoway H, van Netten C, Muller CH, Ewers TG. Evaluation of Metal Exposed Workers: An Occupational Reproductive Toxicity Assessment. Proceedings of the Arctic & Pacific Divisions AAAS and the Far Eastern Branch, Russian Academy of Sciences. Bridges of Science: Anchorage, Alaska and Vladivostok, Russian Far East, August 25-27 (Anchorage) and August 29-September 2, 1994 (Vladivostok).

Invited Presentations (National):

Ghimire, N., Hogge, J., Hines, S., Hansen, L., Ewers, T., Glaze, B., Buck, J., Dalton, N., De Haro Marti, M., Hart, K., Norell, R., Olsen, N., Ruth, A., Roe, A. (2020, February). *Program reporting in the Cooperative Extension: Focus, expectations, practices, and views*. Paper accepted to be presented at the Extension Leadership Conference, San Antonio, TX.

Miller, J., Rae-Keywood, J., Ewers, T., Lewis, K, Bird, M., Borba, J., Hill, R., Shelstad, N., & Trzesniewski, K. (2017). Understanding First Year Expectations in 4-H. National Association of Extension 4-H Agents (NAE4-HA) National Conference, Indianapolis, IN, November 12-17, 2017.

Miller, J., Lewis, K., Bird, M., Borba, J., Ewers, T., Hill, R., Shelstad, N., & Trzesniewski, K. (2016). The All Important First Impression: Parent & Guardian Perceptions of their First Year in 4-H. National Association of Extension 4-H Agents (NAE4-HA) National Conference, New Orleans, LA, October 11, 2016.

Worker, S., Ewers, T., Frerichs, S., Hill, P., Kahler, J., Smith, R., & Walsh, M.A. (2015). Making and Tinkering in 4-H: Roundtables with Experts. National Association of Extension 4-H Agents (NAE4-HA) National Conference, Portland, OR, October 27, 2015.

Frerichs, S., Ewers, T., Switzer, G. Mahacek, R., & Barker, B. The 4-H Robotics Platforms Curriculum. National Association of Extension 4-H Agents National Conference, Orlando Florida, October 20, 2012.

Ewers, T., & Switzer, G. The LEGO WeDo System. National Association of Extension 4-H Agents National Conference, Orlando, Florida, October 20, 2012.

All about FIRST: A presentation for 4-H Professionals. Hosted by the National 4-H Council, May

30, 2012.

Frerichs, S., Ewers, T., & Mahacek, R. Implementing 4-H Robotics: Engineering for Today and Tomorrow. National Association of Extension 4-H Agents National Conference, Omaha, Nebraska, October 26, 2011.

Barker, B., Mahacek, R., Ewers, T., Switzer, G., Gibson, D., Worker, S. The 4-H Robotics Curriculum: Status and Plans for Implementation, National Association of Extension 4-H Agents National Conference, Phoenix, Arizona October 24-28, 2010.

Ewers, TG. The *FIRST* Robotics Programs for K-12 Youth. National Association of Extension 4-H Agents National Conference, Rochester, New York, October 25-30, 2009.

Ewers, TG. The 4-H CCS Robotics Curriculum. National Association of Extension 4-H Agents National Conference, Milwaukee, Wisconsin, October 21-26, 2006

El-Mansouri AS, Hess HL, Buck KM, Ewers TG. Technical Aspects of Creating and Assessing a Learning Environment in Digital Electronics for High School Students, Annual Conference of the American Society for Engineering Education, Portland, OR, June 12-15, 2005.

Takaro TK, Ertell K, Bartell SM, Ponce R, Ewers TG, Faustman EM, Griffith W, Salazar M, Barnhart S. Improving the Evaluation of Risk to Workers in the Budget Planning Process at a Former U.S. Nuclear Production Site. Society for Risk Analysis Annual Meeting, Washington, D.C., December 7-11, 1997.

Review of Risk Data Sheet Information for Fiscal Year 1998. Consortium for Risk Evaluation with Stakeholder Participation (CRESP) National Review Panel Final Report, May 14, 1996.

Alexander BH, Checkoway H, van Netten C, Muller CH, Ewers TG, Faustman EM. The Relationship of Blood and Semen Lead Concentrations to Semen Quality Parameters among Lead Smelter Workers. Society for Epidemiologic Research, Boston, Massachusetts, June 12-15, 1996.

Improving DOE/EM Risk Information: Content and Format. Conclusions and Recommendations from Two Consortia for Risk Evaluation with Stakeholder Participation (CRESP) Working Meetings. November 22, 1996. Institute for Evaluating Health Effects, Washington, D.C.

Faustman EM, van Belle G, Ewers TG, Moore JA, Powers C, Greenberg M, Omenn GS. Comparison of DOE's Recently Developed Risk Prioritization Model with Other Priority-Setting Tools Used for Ranking Hazardous Waste Sites. Society for Risk Analysis Annual Meeting, Honolulu, Hawaii, December 3-6, 1995.

Muller CH, Checkoway H, Alexander BH, van Netten C, Ewers TG, Faustman E. Relationship Between Metal Exposure and Sperm Acrosomal Function Tests among Workers at a Lead Smelter. American Society of Andrology, Raleigh North Carolina, March 31 -April 4, 1995.

Ewers TG, Alexander B, Checkoway H, Woods JS, Faustman EM. The Sperm Chromatin Structure Assay as a Method for Detecting the Effects of Lead on the Male Reproductive System. Society of Toxicology Annual Meeting, New Orleans, LA, March 1993. *The Toxicologist* 1993;13:350.

Ewers TG, Muller CH, Alexander B, Checkoway H, Woods JS, Faustman EM. Examination of the Effects of Lead on Sperm Chromatin Structure and on Spermatogenesis in Rats. PANWAT Proceedings, Pack Forest, WA October 1993; 10(1):11.

Invited Presentations (Regional):

Ewers, TG. Knott, M., & Bradetich, C. 4-H Robotics For Ages 6-10. Washington/Idaho State 4-H Forum, Spokane, Washington, October 15-17, 2010.

Ewers, TG. GPS/GIS – So What is this... Really? Western Region Leaders' Forum, Boise, Idaho, March 6-9, 2008.

Ewers, TG. Science in Afterschool: The 4-H Connection. Space Science Network Northwest Group, Seattle, Washington, June, 2006

Adams A, Ewers TG, Piez C, & Wallin, A. Classroom Assessment for Mathematical Proficiency, Northern Rocky Mountain Educational Research Association, 24th Annual Conference, Sun Valley, October 11-14, 2006

Wallin, A., & Ewers, TG. More Than a Hammer: A Second Look at the Calculator, Northern Rocky Mountain Educational Research Association, 24th Annual Conference, Sun Valley, ID, October 11-14, 2006

Ewers TG, Kelly GN. Enhancing Spatial Reasoning Skills Using Manipulatives and Two-Dimensional Depictions of Three-Dimensional Objects, Western Regional Conference for the National Council of Teachers of Mathematics, Boise, ID, October 7-9, 1999.

Invited Presentations (State):

Ewers, TG, Presenting the FLL and FTC Games, North Idaho GEAR UP Expo, North Idaho College, Coeur d'Alene, ID, October 28, 2014.

Ewers, TG, Inquiry-based Learning Update. Presentation at Extension Statewide Training, conducted 3 times in Twin Falls (September 18, 2014), Salmon (October 1, 2014), and Post Falls (October 15, 2014).

Ewers, TG, & Boyd, W. Idaho ROKS: A K-12 series of programs in which youth and adult mentors experience science and engineering through robotics, Idaho STEM Innovations Conference, Boise, Idaho May 28-29, 2014.

Boyd, W., & Ewers, TG. Cultivating Confidence and Relationships through WeDo Robotics, Idaho STEM Innovations Conference, Boise, Idaho May 28-29, 2014.

Ewers, TG, Teaching Inquiry through LEGO WeDo Robotics. Idaho 4-H State Leaders' Forum, Fort Hall, ID, November 8-9, 2013. (24 participants).

Ewers, TG, Robotics Show-and-Tell: What is Robotics and Who is doing It? Idaho 4-H Statewide Training, Boise, ID, October 28-30, 2013. (24 participants).

Ewers, TG, Promoting STEM through Robotics: The FLL and FTC Programs, Idaho Science Teachers Association (ISTA), Pocatello, ID, October 4-6, 2013. (25 participants).

How to Use the Junk Drawer Robotics Curriculum, Idaho State 4-H Leaders' Forum, Burley, ID, November 3, 2012. (15 participants).

How to Build, Program, and Conduct Activities Using the LEGO WeDo Robotics System for Youth Ages 6-9, Idaho State 4-H Leaders' Forum, Burley, ID, November 3, 2012. (12 participants).

H. Shaklee, M. Toomey and T. Ewers, Block Building: It's not just for preschoolers any more, College and Career Ready Summit: Moving Idaho Forward, Boise, August 16, 2012.

Ewers, TG. Idaho 4-H Robotics: The Big Picture. Idaho 4-H Annual Conference, Moscow, ID, April 5, 2011.

Ewers, TG., Toomey, M., & Norland, I. Life Skills Evaluation: Where We Are At, Where We Are

Going & How to Get There, Statewide 4-H Training, Boise, Idaho November 12, 2009.

Ewers, TG, The Power of the Wind, 4-H Curriculum, (12 Extension Staff), Statewide Training, Boise, ID, November 10-11, 2009

Ewers, TG, Introduction to the LEGO Mindstorms Kit and Prelude to the New 4-H Robotics Curriculum, (21 Extension Staff), Statewide Training, Boise, ID, November 10-11, 2009

Ewers, TG, & Stark, C. Online Survey Tools, Extension Annual Conference, (22 Extension Faculty) Moscow, ID March 10-12, 2009.

Ewers, TG. The Idaho 4-H Science, Engineering, and Technology Program. Statewide 4-H Training, Boise, Idaho, November 3-6, 2008.

Ewers, TG, & Stark, C. 4-H Record Books – A Torture Device? Statewide 4-H Training, Boise, Idaho, November 3-6, 2008.

Ewers, TG. & Toomey, M. Life Skill Evaluation – What the Pilot Sites Demonstrated. Statewide 4-H Training, Boise, Idaho, November 3-6, 2008.

Toomey, M., & Ewers, TG. Measuring Life Skills, Co-Presenter, Idaho Statewide 4-H Training, Caldwell, ID Oct. 2, 2007

Ewers, TG. 4-H Youth Development Promoting Science and Engineering Through LEGO Robotics. University of Idaho Extension Annual Conference, Moscow, Idaho, April 10-12, 2007

Grants and Contracts Awarded (Total in current position, \$. Primary Spending Authority, \$):

Baumgartner, R., & Ewers, TG. Micron Foundation. Support for the South Idaho FLL Championship Tournament, 2020, \$5,000 (Spending Authority, \$5,000).

Baumgartner, R., & Ewers, TG. POWER Engineers. Support for the North Idaho FLL Championship Tournament, 2020, \$1,000 (Spending Authority, \$1,000).

Baumgartner, R., & Ewers, TG. Idaho STEM Action Center: Support for the state FIRST tournaments, 2020, \$10,000 (Spending Authority, \$10,000).

Baumgartner, R., & Ewers, TG. LEGO Foundation FLL Discover Grant, 2020, \$8,860 (Spending Authority, \$8,860).

Baumgartner, R., & Ewers, TG. POWER Engineers. Support for the North Idaho FLL Championship Tournament, 2019, \$2,500 (Spending Authority, \$2,500).

Baumgartner, R. & Ewers, TG. Idaho STEM Action Center: Support for the state FIRST tournaments, 2019, \$10,000 (Spending Authority, \$10,000).

Baumgartner, R. & Ewers, TG. Micron Foundation. Support for the South Idaho FLL Championship Tournament, 2019, \$5,000 (Spending Authority, \$5,000).

Baumgartner, R. & Ewers, TG. Idaho STEM Action Center: Support for the state FIRST tournaments, 2018, \$10,000 (Spending Authority, \$10,000).

Baumgartner, R., & Ewers, TG. M. J. Murdock Charitable Trust: Support for teams in the FLL Program, 2018, \$7,640 (Spending Authority, \$7,640).

Baumgartner, R., & Ewers, TG. POWER Engineers. Support for the North Idaho FLL Championship Tournament, 2018, \$2,500 (Spending Authority, \$2,500).

Baumgartner, R. & Ewers, TG. Micron Foundation. Support for the South Idaho FLL Championship

Tournament, 2018, \$5,000 (Spending Authority, \$5,000).

Lindstrom, JH, Ewers, TG, Howell, ME, Spencer, MR, Momont, PA, Hansen, LJ, & Petty, BD. UI Extension AmeriCorps, Serve Idaho/Corporation for National and Community Service, \$279,000, 10/1/18 – 9/30/20.

Lewis, K., Miller, J., Ewers, T, & Shelstad, N. Understanding Recruitment and Retention in the 4-H Club Program, NIFA, \$300,000, 10/1/18 – 9/30/23.

Behnke, A. Aguilar, C, Urieta, D, McShane, J, Hernadez, J, & Ewers, T. CYFAR - The Juntos Sustainable Community Project, 10/1/18 – 9/30/20, \$198,217.

McShane, J., & Ewers, TG. NMP8 Idaho 4-H OJJDP Mentoring Program, 2018, \$57,960 (Spending Authority, \$57,960).

Ewers, TG. FabSLAM 3D Training Grant, 2017, Idaho STEM Action Center, \$1,000 (Spending Authority, \$1,000).

Johnson-Leung, J., Ewers, TG., & Opheim, J. Gear Up! Summer Math Program, 2017, Micron Foundation, Inc. \$5,000 (Spending Authority, \$5,000).

Opheim, J., & Ewers, TG. STEM Programming for Underserved Youth, 2017, Idaho STEM Action Center, \$8,500 (Spending Authority, \$8,500).

Ewers, TG. Idaho Afterschool Network. Compilation and Analysis of the data from the Mapping Idaho Youth Resources Survey, \$5,000 (Spending Authority, \$5,000).

Gerber, L. & Ewers TG. National 4-H Mentoring Program: Idaho 4-H Tech Wizards OJJDP, 2017, \$70,485 (Spending Authority, \$70,485).

Ewers, TG. FabSLAM 3D Design and Fabrication, Idaho STEM Action Center, \$1,270 (Spending Authority, \$1,270).

Gerber, L. & Ewers TG., National 4-H Mentoring Program: Idaho 4-H Tech Wizards OJJDP, 2016, \$113,173 (Spending Authority, \$113,173).

Ewers, TG., & Baumgartner, RM. M. J. Murdock Charitable Trust: Support for teams in the FLL and FTC Programs, 2016, \$13,950 (Spending Authority, \$13,950).

Baumgartner RM, Ewers, TG, & Root, J. Micron Foundation in support of the Southern Idaho FLL Championship Tournament, \$10,000 (Spending Authority, \$5,000).

Baumgartner RM, Ewers TG, & Root, J. Power Foundation in support of the Northern Idaho FLL Championship Tournament, \$5,000 (Spending Authority, \$2,500).

Ewers, TG, & Gerber, L., National 4-H Mentoring Program: Idaho 4-H Tech Wizards in Ada County, Canyon County, and Mountain Home Air Force Base: OJJDP, 2015, \$173,880 (Spending Authority, \$173,880).

Ewers, TG. M.J. Murdock Charitable Trust: Support for Teams in the FLL and FTC Programs, 2015, \$14,560.32 (Spending Authority, \$14,560.32).

Saralecos, S. & Ewers, TG. Idaho National Laboratories (INL) Tournament and Team Support, 2015, \$1,000 (Spending Authority, \$1,000).

Ewers, TG, Silkwood, G, & Gerber, L, National 4-H Mentoring Program: Idaho 4-H Tech Wizards, Benewah County and Mountain Home Air Force Base: OJJDP, 2014, \$82,000 (Spending Authority, \$82,000).

Saralecos, S., Boyd, W. & Ewers, TG. Avista Tournament/Team Support, 2014, \$5,000 (Spending Authority, \$5,000).

Boyd, W., & Ewers, TG. M.J. Murdock Charitable Trust: Support to Teams in the FLL and FTC Programs, 2014, \$5,200.

Boyd, W., & Ewers, TG. AmeriCorps Natural Science Facilitation Coaches for Developing the Capacity within Counties to Provide 4-H Natural Resource Educational Programs, 2014-2017. This proposal secured from the Palouse Clearwater Environmental Institute the assignment of three AmeriCorps Volunteers per year to work directly for Idaho 4-H.

Ewers, TG. Micron Foundation Grant to support FLL Tournaments, 2013, \$3,000 (Spending Authority, \$3,000)

Ewers, TG. M.J. Murdock Charitable Trust, FLL Team Support, 2013, \$2,300

Ewers, TG. M.J. Murdock Charitable Trust, FTC Team and Program Support, 2013, \$5,800

Ewers, TG, & Mayes, I. National 4-H Mentoring Program: Idaho 4-H Tech Wizards, Coeur d'Alene Indian Reservation: OJJDP, 2013, \$41,000 (Spending Authority, \$41,000)

Ewers, TG, FLL Tournament Support, M.J. Murdock Charitable Trust, FLL Tournament Support, 2012, \$3,800 (Spending Authority, \$3,800).

Ewers, TG, & Lindstrom, J. National 4-H Mentoring Program: Idaho 4-H Tech Wizards, Homedale & Farmway Village; OJJDP, 2012, \$41,000 (Spending Authority, \$41,000).

Ewers, TG. FLL FIRST Murdock FIRST LEGO League (FLL) Team Support Grants, For Inspiration and Recognition of Science and Technology (FIRST), 2012, \$5,670 (Spending Authority, \$5,670).

Ewers, TG. FIRST Murdock FIRST Tech Challenge (FTC) Team Support Grants, For Inspiration and Recognition of Science and Technology (FIRST), 2012, \$5,500 (Spending Authority, \$5,500).

Ewers, TG, FIRST FTC Program Expansion Grant, 2012, \$5,000 (Spending Authority, \$5,000).

Ewers, TG. FLL Tournament Support. M.J. Murdock Charitable Trust, FLL Tournament Support, 2011, \$1,000 (Spending Authority, \$1,000).

Ewers, TG, & Means, M. Time Warner Cable Idaho 4-H FLL Program Support, 2011, \$25,000 (Spending Authority, \$25,000).

Nauman, A., & Ewers, TG. National 4-H Mentoring Program: Idaho 4-H Tech Wizards on the Mountain Home Air Force Base; OJJDP, 2011, \$82,000 (Spending Authority, \$82,000).

Ewers, TG. FIRST Murdock FIRST Tech Challenge (FTC) Team Support Grants, For Inspiration and Recognition of Science and Technology (FIRST), 2011, \$8,968 (Spending Authority, \$8,968).

Ewers, TG. Adobe Youth Voices Grant for Equipment, Software, and Training, 2011, \$5,000 (Spending Authority, \$5,000).

Ewers, TG. FIRST Murdock FIRST LEGO League (FLL) Team Support Grants, For Inspiration and Recognition of Science and Technology (FIRST), 2011, \$2,912 (Spending Authority, \$2,912).

Ewers, TG. FIRST Support Grant, For Inspiration and Recognition of Science and Technology (FIRST), 2011, \$4,744 (Spending Authority, \$4,744).

Nauman, A. & Ewers, TG. National 4-H Mentoring Program: Idaho 4-H Tech Wizards in Two Idaho

Latino Communities; OJJDP, 2011, \$82,000 (Spending Authority, \$82,000).

Thomas A., & Ewers, TG. National Space Grant College and Fellowship Program, National Aeronautics and Space Administration; 2010, \$270,000 (Spending Authority, \$35,000).

Ewers, TG. *FIRST* Growth Grant, For Inspiration and Recognition of Science and Technology (*FIRST*), 2010, \$2,000 (Spending Authority, \$2,000).

Ewers, TG. *FIRST* Murdock FLL Team Support Grant, For Inspiration and Recognition of Science and Technology (*FIRST*), 2010, \$1,600 (Spending Authority, \$1,600).

Ewers, TG. 4-H Robotics Program Equipment Support Grant, University of Idaho Extension, 2010, \$2,000 (Spending Authority, \$2,000).

Toomey, M., & Ewers, TG. 4-H After-school Outreach to At-Risk Communities, USDA, CYFAR (Children, Youth, and Families At Risk), April 2011-May 2014, \$660,000 (Spending Authority, \$0).

Barker, B., Mahacek, R., Ewers, T., Switzer, G., Gibson, D., Worker, S. National 4-H Curriculum Development Grant, "4-H Robotics: Engineering for Today and Tomorrow," USDA/National 4-H Council, 2009-2010, \$400,000. (Spending Authority, \$25,000).

Ewers, TG. Rookie Team Grant for the *FIRST* Tech Challenge (FTC) Program, Murdock Foundation, 2009, \$1,200. (Spending Authority, \$1,200).

Ewers, TG. *FIRST* Robotics Tournament Support Grant, 2009, LCF Enterprises, Inc., \$25,000. (Spending Authority, \$25,000).

Ewers, TG. *FIRST* FLL Team Support Grant, Murdock Foundation, 2009, \$1,800. (Spending Authority, \$1,800).

Ewers, TG. Geospatial Activities for 4-H, Idaho 4-H Endowment, 2009, \$2,000. (Spending Authority, \$2,000).

Ewers, TG. Idaho ROKS Tournament Support Grant, LCF Enterprises, Inc., 2008, \$5,000. (Spending Authority, \$5,000).

Toomey, M., & Ewers, TG.. Idaho Sustainable Community Project, USDA, CYFAR (Children, Youth, and Families At Risk), April 2007-May 2011, \$700,000. (Spending Authority, \$0).

Ewers, TG. New *FIRST* Tech Challenge (FTC) Team Grant, Murdock Foundation, 2008, \$600. (Spending Authority, \$600).

Ewers, TG. The Idaho FTC Program, Idaho 4-H Endowment, 2008, \$3,000. (Spending Authority, \$3,000).

Teasdale, J., Ewers, TG, & Highfill, B. Idaho Robotics Team and Tournament Support Grant, Idaho National Laboratory, 2008-2009, \$50,000. (Spending Authority, \$50,000).

Ewers, TG. Expanding FLL in Idaho, *FIRST* Growth Grant, 2007, \$2,000. (Spending Authority, \$2,000).

Ewers, TG. Idaho FLL Tournament Support, LCF Enterprises, 2007, \$15,000. (Spending Authority, \$15,000).

Ewers, TG. Idaho FLL Championship, Idaho 4-H Endowment, 2007-2008, \$3,000. (Spending Authority, \$3,000).

Ewers, TG. *FIRST* LEGO League (FLL) Tournament Support Grant, University of Idaho College of Agricultural & Life Sciences, 2007, \$1,000. (Spending Authority, \$1,000).

Ewers, TG. The NEED Project, Energy Education through 4-H, Department of Energy/National Association of State Universities and Land-Grant Colleges, 2007-2008, \$3,800. (Spending Authority, \$3,800).

Benesh, C., Powell, P, Ewers, TG. Mattox, N., Gray, R., Stevens, D. Black, L., & van Dijk, H. Alert, Evacuate, and Shelter: Community Readiness Network 4-H Youth and Emergency Disaster Education, National Geographic Foundation, 2007-2008, \$150,000. (Spending Authority, \$0).

Ewers, TG. LEGO Robotics Team Building, Idaho 4-H Endowment, 2006-2007, \$2,300. (Spending Authority, \$2,300).

Ewers, TG. Geo-Spatial Technology: Engaging 4-H Youth in Local Issues through Community Mapping, Topic Team Project Grant, College of Agricultural & Life Science, University of Idaho, 2005-2006, \$3,000. (Spending Authority, \$3,000).

Odell, M. Graves, S. Klett, M., Ewers, TG, & Abbott, J. Idaho Hands-On Elementary Science, Math Science Partnership Grant (SDOE), 2005-2008, \$231,000. (Spending Authority, \$231,000).

Odell, M. Teasdale, J. Graves, S. Ewers, TG, Klett, M., & Graham, J. Historical Visions, Enhancing Education Through Technology, State Department of Education, \$70,000, 2004-2005. (Spending Authority, \$70,000).

Ewers, TG. Physical Science for Elementary and Middle School Teachers, Math, Science Partnership Grant (SDOE)/ SDSU/NSF Grant 2004-2005, \$102,000. (Spending Authority, \$102,000).

Odell, M., Ewers, TG, Klett, M. Classroom Assessment for Mathematics Performance, State Math, Science Partnership Grant (SDOE), 2004-2007, \$280,000. (Spending Authority, \$280,000).

Ewers, TG. & Odell, M. Classroom Assessment of Mathematics Performance, State Eisenhower Grant, 2002-2004, \$47,248. (Spending Authority, \$47,248).

Kelly, G., & Ewers, TG, Dynamic Math Workshop, State Eisenhower Grant, 2000, \$38,500. (Spending Authority, \$38,500).

Ewers, TG. CPU Constructing Physics Understanding in Elementary Teachers, Idaho State Eisenhower Grant. 2000 -2002, \$28,000. (Spending Authority, \$28,000).

Ewers, TG. Idaho Science Teachers and Researchers, Idaho EPSCoR Program, \$30,000. 1999-2002. (Spending Authority, \$30,000).

Ewers, TG. Dynamic Geometry Workshop, Idaho State Eisenhower Grant, \$30,000. 1999. (Spending Authority, \$30,000).

Program Fees Generated:

Ewers, TG, & Baumgartner, R. Fees generated to support the FLL Qualifying Tournaments, 2020, \$1,272.00 (Spending Authority, \$1,272).

Ewers, TG, & Baumgartner, R. Fees generated to support the FLL Championship Tournaments, 2020, \$8,190.00 (Spending Authority, \$8,190).

Ewers, TG, & Baumgartner, R. Fees generated to support the FTC Championship Tournament, 2020, \$3,520.00 (Spending Authority, \$3,520).

Ewers, TG, & Baumgartner, R. Fees generated to support the FLL State Championship Tournaments, 2019, \$8,190 (Spending Authority, \$8,190).

Ewers, TG, & Baumgartner, R. Fees generated to support the FTC Tournaments, 2019, \$3,640 (Spending Authority, \$3,640).

Ewers, TG, & Baumgartner, R. Fees generated to support the FLL Qualifying Tournaments, 2019, \$13,280 (Spending Authority, \$13,280).

Ewers, TG, & Baumgartner, R. Fees generated to support the FTC Tournament, 2018, \$3,780 (Spending Authority, \$3,780).

Ewers, TG, & Baumgartner, R. Fees generated to support FLL Tournaments, 2018, \$21,530 (Spending Authority, \$21,530).

Ewers, TG, & Baumgartner, R. Fees generated to support the FTC Tournament, 2017, \$3,045 (Spending Authority, \$3,045).

Ewers, TG, & Baumgartner, R. Fees generated to support FLL Tournaments, 2017, \$21,820 (Spending Authority, \$21,820).

Ewers, TG, & Baumgartner, R. Fees generated to support the FTC Tournament, 2016, \$2,730 (Spending Authority, \$2,730).

Ewers, TG, & Baumgartner, R. Fees generated to support FLL Tournaments, 2016, \$21,740 (Spending Authority, \$21,740).

Ewers, TG, & Baumgartner, R. (2015). Fees generated to support the FTC Tournament, 2015, \$3,360 (Spending Authority, \$3,360).

Ewers, TG, & Baumgartner, R. (2015). Fees generated to support FLL Tournaments, 2015, \$19,455 (Spending Authority, \$19,455).

Ewers, TG, & Boyd, W. Fees generated to support FLL Tournaments, 2014, \$17,370.

Ewers, TG, & Boyd, W. Fees generated to support FTC Tournaments, 2014, \$4,095

Ewers, TG. Fees generated in support of the FLL Tournaments, 2013, \$13,635 (Spending Authority, \$13,635)

Ewers, TG. Fees generated in support of the FTC Tournament, 2013, \$3,300 (Spending Authority, \$3,300)

Ewers, TG. Fees generated in support of the FLL Tournaments, 2012, \$17,235 (Spending Authority, \$17,235).

Ewers, TG. Fees generated in support of the FTC Tournament, 2012, \$2,800 (Spending Authority, \$2,800).

SERVICE:

Major Committee Assignments:

National:

Reviewer for proposals submitted to the 2018 PNW 4-H Conference, 2018

Reviewer for the California Agriculture Journal, 2018-Present

4-H Common Measures State Liaison, 2016-Present

Review Panel for the Brandeis University Study of the Impact of FIRST LEGO League, 2014

Western Super-regional FTC Championship Planning Committee, 2013-2016

National 4-H Robotics Advisory Team, 2011-Present

Western 4-H Region Science Academy Planning Committee, Partnership and Collaborations Track co-lead, 2011.

National 4-H Science Management Team, 2011-2014
 Western Regional 4-H Science Team, State Liaison and Group Facilitator (2011-2015), 2010-Present
 Northwest *FIRST* Partners Growth Management Team, 2010
 Grant Reviewer on 4-H National Council Panel for JC Penneys Robotics Team Grants, 2009
 4-H Western Regional Science, Engineering, & Technology Committee, 2008-2014
 4-H SET Robotics, 2008-2014
FIRST Tech Challenge Affiliate Partner, 2008-Present
 4-H Science, Engineering, & Technology Liaison, 2006-2015
 NAE4-HA Geospatial Taskforce, 2006-Present
FIRST LEGO League Operational Partner, 2006-Present
 Reviewer for National 4-H Programs of Distinction, 2005-2007
 Out-of-School-Time-Working-Group (OSTWG), 2005-2008
 Reviewer for the Journal of Interactive Online Learning, 2003-2004

State:

Position Defining and Description for new 4-H STEM Faculty Position, Chair. 2019.
 Search and Screen Committee Chair for 4-H STEM Faculty Position, 2019.
 NAE4-HA Idaho 2020 Planning Committee, Chair Evaluation and Technology sub-committees 2016-Present.
 Position Defining and Hiring Recommendation Committee for the new 4-H Regional Educator Positions, Chairperson, 2015.
 4-H Volunteer Development Committee, 2010-Present
 Idaho Association of Extension 4-H Agents (IAE4-HA), Northern District Representative, 2009-2011.
 Idaho Robotics Opportunities for K-12 Students (Idaho ROKS), Director 2008-2016
 4-H Science, Engineering, & Technology Team, Chairperson, 2007-Present
 4-H Program Evaluation Team, Co-Leader, 2007-Present
 Idaho *FIRST* LEGO League Tournament Planning Committee, Chairperson, 2007-Present
 4-H Retreat Planning Committee, 2006-2007
 4-H Curriculum Committee, College of Agricultural and Life Sciences, 4-H Youth Development, Chairperson (2005-2010), 2005-present
 2006 Pacific Northwest Conference Planning committee, 2005-2006
 Director of the Idaho Science Teachers as Researchers Program, 2003-2004
 Member of State Board of Education Committee to establish K-12 teacher quality standards, 2002-2003

University of Idaho:

Screening Committee for 4-H Office Manager, Chair, 2020.
 Screening Committee for 4-H AmeriCorps Administrative Assistant, 2020.
 Screening Committee for 4-H Area STEM Educator, Chair, 2020.
 Team Lead for the Priority Extension Theme (PET), 4-H Community Youth Development, 2018-Present
 Search and Hiring Committee for 4-H Administration Assistant Position in the State 4-H Office, 2016
 Position Development, Search, and Interview Committee for 4, 4-H Regional Educator Positions, Chairperson, 2015.
 Search and Hiring Committee for 4-H Science Coordinator Position, Chairperson, 2015-2016.
 Promotion & Tenure Committee, College of Agricultural and Life Sciences, 2012-2015.
 Search and Hiring Committee for the 3, 4-H AmeriCorps Positions in the Natural Resource Education Program, Chairperson, 2015.
 Outside Committee Member on Master's Graduate Committee for Megan Hash, 2015-2016
 Promotion & Tenure Committee, College of Agricultural and Life Sciences, 2013.
 Dr. Carrie Stark Promotion and Tenure Committee, Chair, 2012.
 UI State 4-H Director Search Committee, 2012
 UI STEM Director Search Committee, 2012
 UI STEM Signature Area Focus Team, 2011
 UI-STEM Micron Study Committee, 2011-2015

Faculty Advisory, UI Men's Hockey Team, 2011-Present
 Third-year Review Committee for Carrie Stark, Asst. Professor and 4-H Specialist, 2010.
 AEE & 4-H Merger Committee, College of Agricultural & Life Science, 2009-10.
 Faculty Search Committee, College of Agricultural & Life Sciences, 2008
 Faculty Search Committee, College of Education, 2006
 Promotion & Tenure Committee, College of Agricultural and Life Sciences, 2005-2009.
 Redesign of the Elementary Science/Mathematics Methods Teaching Block, College of Education, 1999-2003
 Institute for Mathematics, Interactive Technology, and Science Steering Committee, College of Education, 1998-2005
 Foundation Representative, Phi Delta Kappa, 2001-2003

Professional and Scholarly Organizations (including memberships, committee assignments, editorial services, offices held and dates)

National Association of Extension 4-H Agents, 2005-present
 Idaho Association of Extension 4-H Agents, 2005-present
 Idaho Academy of Sciences, 2005-present
 Idaho Science, Technology, and Mathematics Coalition (ISMTC), 2004-2013
 Idaho Council of Teachers of Mathematics (ICTM), 2000-2005
 National Council of Teachers of Mathematics (NCTM), 2000-2005
 National Science Teachers Association (NSTA), 2000-2005
 Phi Kappa Phi, 1999-present
 Phi Delta Kappa (PDK), 1998-2005, Foundation Representative 2001
 Society of Toxicology, 1992-1995
 Beta Beta Beta, 1983-1985
 American Chemical Society, 1982-1985

Outreach Service:

Classes, Workshops, Seminars, Share Fairs and Tours Organized:

Ewers, TG. Idaho ROKS: What is it, what have we done, and what do we need?; A presentation to the Deans and University Foundation about the Idaho ROKS program. July 10, 2008.

Ewers, TG. The Idaho K-12 Robotics Pipeline and Introduction to *FIRST* LEGO League, Prairie Middle School, Cottonwood, ID (2 teachers, 1 Principal, 15 parents, and 12 children), Nov. 1, 2007

Ewers, TG. Launching SET in Idaho 4-H: A briefing on the 4-H SET Initiative to the Extension Advisory Board, Moscow, ID, Oct. 17, 2007

Ewers, TG. The *FIRST* LEGO League Program, a presentation to the parents, coaches, and youth interested in the FLL program, McCall, Idaho, September 21, 2007

Ewers, TG. The *FIRST* LEGO League Program, a presentation to potential FLL Coaches, Post Falls, Idaho, September 13, 2007

Ewers, TG. The *FIRST* LEGO League Program, a presentation to the parents and youth, Katrina Dasenbrock's Team, Moscow, Idaho, April 29, 2007

The Junior *FIRST* LEGO League Program, a presentation to the Director and staff of the Moscow Adventure Club, Moscow, Idaho, November 1, 2006

The Junior *FIRST* LEGO League Program, a presentation to the teachers, parents, and youth, Sorensen Elementary School, Coeur d'Alene, Idaho, October 27, 2006

STEM Opportunities through 4-H, AmeriCorps Pre-Service Orientation, Boise, Idaho, September 28, 2006

Miscellaneous Extension Publications:

Ewers, T. (2009), Expanding Science, Engineering, and Technology Activities for Idaho Youth through 4-H: The Idaho ROKS Program. Idaho 4-H Leaders' Corner, June, 2009.

Ewers, T. (2009). "In Science and Engineering, 4-Her's are Idaho's 'Can-Do' Kids." Ag Weekly, March 4, 2009. Online: http://www.agweekly.com/articles/2009/03/04/news/ag_news/news13.txt

Stark, C. & Ewers, T. (2009). "A Survey of Idaho's 4-H Record Books." Extension Focus, Jan./Feb., Vol. 24, Number 1.

Ewers, T. (2008). "Getting Kids Focused on Science and Engineering Careers by Playing with Robots." *Extension Focus*, Nov./Dec., Vol. 21, Number 6 (District III Extension Newspaper; circulation: 7, 049 households).

The Idaho ROKS Program, Idaho 4-H Today (Annual publication;2008)

The 4-H National Science Day Experiment, Leaders Corner, November, 2008

The Idaho 4-H Science, Engineering, & Technology Program. Leaders' Corner Newsletter, 2007

4-H Today, a bi-annual publication that provides details about the programs 4-H offers, 2006

Judging:

Field Tech Advisor for FIRST Tech Challenge Championships, FIRST World Festival, St. Louis, MO, April 26-30, 2011.

Field Reset Judge for the *FIRST* Tech Challenge Championships, *FIRST* World Festival, Atlanta, GA, April 14-17, 2010.

Judge Advisor, Idaho ROKS *FIRST* LEGO League Championship Tournament, Pocatello, ID, January 16, 2010.

Judge Advisor, North Idaho *FIRST* LEGO League Qualifying Tournament, Post Falls, ID, December 5, 2009.

Field Reset Judge for the *FIRST* Tech Challenge Championships, *FIRST* World Festival, Atlanta, GA, April 15-18, 2009.

Teamwork Judge for *FIRST* LEGO League, *FIRST* World Festival, Atlanta, GA, April 16-19, 2008.

Review Activities:

Idaho ROKS (Robotics Activities for K-12 Students) Annual Report 2008-9. June 2009.

Ewers, T. (2009). The Idaho ROKS Business Plan. Annual, Updated Plan submitted to *FIRST* as part of an Affiliate Agreement to bring the *FIRST* Tech Challenge (FTC) high school robotics program to Idaho.

Ewers, T. (2008). The Idaho Science, Engineering, and Technology (SET) Plan for Developing and Managing the SET Program in Idaho. Submitted to the National 4-H Science, Engineering, & Technology Program.

Ewers, T. (2008). The Idaho ROKS Business Plan. Submitted to *FIRST* as part of an Affiliate Agreement to bring the *FIRST* Tech Challenge (FTC) high school robotics program to Idaho.

Idaho Robotics Opportunities for K-12 Students (Idaho ROKS). 2007-8 Annual Report. June 2008.

The Status of K-12 Mathematics and Science in Idaho: Student Course-taking Patterns and Teacher

Certification. Report to the Idaho State Department of Education. August 2001.

Community Service:

Founding Board Member and Chair of the Programming Committee, Eureka! Palouse Tinkering & Tutoring Center, 2015-Present.
 Founder and President, Palouse Old Timer Hockey Association, 2008-Present
 Team Assistant Manager, Quad Cities Fusion Soccer Team, 2014-2016.
 Coach, Youth Soccer in both Moscow Parks & Recreation (2003-2013) and Moscow United (2005-9).
 Coach, Youth Ice Hockey, Palouse Youth Hockey Association, 2001-2017.
 Founding and active member of the Palouse Ice Rink Association, 2000-2012.
 President, Palouse Ice Rink Association, 2002-03
 Math Day, St. Mary's Elementary School, 2002, 2004, 2006
 Family Math Night, Lena Whitmore Elementary School, 2001-2003
 Secretary, Palouse Youth Hockey Association, 2001-02
 Family Science Day, Garfield Elementary School, Garfield, Washington, 2000-2003
 Member, Moscow Parks and Recreation Commission, 1998-2009

PROFESSIONAL DEVELOPMENT:

- 2020 National Association of Extension 4-H Agents Annual Conference, Boise, ID, October 18-22, 2020.
- 2019 National Association of Extension 4-H Agents Annual Conference, White Sulphur Springs, WV, November 3-7, 2019.
- 2019 Data Visualization Certification Course with Tableau, R and Python, September 23-October 11, 2019.
- 2018 National Association of Extension 4-H Agents Annual Conference, Columbus, OH, October 7-11, 2018.
- 2017 National Association of Extension 4-H Agents Annual Conference, Indianapolis, IN, November 12-16, 2017.
- 2016 National Association of Extension 4-H Agents Annual Conference, New Orleans, LA, October 9-13, 2016.
- 2016 Introduction to the Internet of Things and Embedded Systems, Coursera Online Course, Spring, 2016.
- 2016 The Arduino Platform and C Programming, Coursera Online Course, Summer, 2016.
- 2015 STEM Equity and Identity: What we can do to address the equity issue in STEM education. Webinar, November 20, 2015.
- 2015 National Association of Extension 4-H Agents Annual Conference, Portland, OR, October 26-29, 2015.
- 2015 Afterschool Summit National Meeting, Washington, D.C., September 27-30, 2015.
- 2015 FIRST Partner Conference, Manchester, N.H. June 8-12, 2015
- 2015 Fundamentals of NVivo for Windows, Qualitative Research Software, Online Course, April 12-20, 2015.
- 2015 National 4-H Mentoring Grant Training, National 4-H Conference Center, Chevy Chase, MD, January 12-16, 2015.
- 2014 NAE4-HA National Conference, Minneapolis, MN, October 27-31, 2014.

- 2014 National 4-H Mentor Grant Training for the NMP-4 Grant, National 4-H Conference Center, Chevy Chase, MD, January 6-9, 2014.
- 2013 NAE4-HA National Conference, Pittsburg, OH, September 16-20, 2013
- 2013 4-H Common Measures On-line System Training, May 17, 2013
- 2013 4-H Science e-Academy, 4-H Science Professional Development Resources, Feb.28-Mar.3, 2013
- 2013 National 4-H Mentor Grant Training, National 4-H Conference Center, Chevy Chase, MD, January 7-11, 2013
- 2012 NAE4-HA National Conference, Orlando, FL, October 21-25, 2012
- 2012 RobotC Certification. Webinar Course offered through Carnegie Mellon University, July, 2012.
- 2011 NAE4-HA National Conference, Omaha, NE, October 24-28, 2011
- 2011 FIRST Tech Challenge (FTC) Partner Conference, Manchester, NH, June 9-12, 2011
- 2011 FIRST LEGO League (FLL) Partner Conference, Manchester, NH, June 5-8, 2011
- 2010 NAE4-HA National Conference, Phoenix, AZ, October 24-28, 2010
- 2010 Washington/Idaho State 4-H Forum, Spokane, WA, October 15-17, 2010
- 2009 Idaho 4-H Statewide Training, Boise, ID, November 10-12, 2009
- 2009 NAE4-HA National Conference, Rochester, NY, October 25-30, 2009
- 2009 *FIRST* Tech Challenge Affiliate Partner Conference, Manchester, NH, August 19-22, 2009
- 2009 *FIRST* LEGO League Operational Partner Conference, Manchester, NH, May 18-22, 2009
- 2008 Idaho 4-H Statewide Training, Boise, ID, November 4-6, 2008
- 2008 State Leaders' Forum, Salmon, ID, October 24-26, 2008
- 2008 *FIRST* Tech Challenge Train-the-trainer Workshop, Portland, OR, October 4, 2008
- 2008 Galaxy III, Indianapolis, IN, September 13-18, 2008
- 2007 Idaho 4-H Statewide Training, Caldwell, ID, October 1-4, 2007
- 2007 VISTA: Supervisor's Orientation, Provo, UT, August 20-23, 2007
- 2007 *FIRST* LEGO League New Partners' Training, Manchester, NH, June 18-22, 2007
- 2007 4-H National Science, Engineering, and Technology Training, Lincoln, NE, June 4-7, 2007
- 2007 Department of Energy-National Energy Education Development Program Curriculum Training, San Francisco, CA, May 6-9, 2007
- 2007 University of Idaho Cooperative Extension System Annual Conference, Moscow, ID, April 10-12, 2007
- 2007 Western Region 4-H Specialists Conference, Tucson, AZ, March 12-15, 2007

- 2007 Alert, Evacuate, Shelter Training Session, Reno, NV, February 14-16, 2007
- 2007 Community Emergency Response Team Training, Boise, ID,
- 2007 University of Idaho, 4-H Retreat, Cascade, Idaho
- 2006 Idaho 4-H Leaders' Forum, Boise, ID, November 10-11, 2006
- 2006 Idaho Afterschool Summit, Boise, ID
- 2006 National Association of Extension 4-H Agents Annual Meeting, Milwaukee, WI, October 22-27, 2006
- 2006 Idaho Science Teachers Association, Eagle, ID, October 5-6, 2006
- 2006 Introduction to LEGO Mindstorms Robotics System Workshop, Palouse Science Discovery Center, Pullman, WA
- 2006 Space Science Network Northwest Annual Conference, Seattle, Washington
- 2006 May 1-3, Sharing Strategies for Success: 4-H Youth and Families PNW, Tri-State Conference, Boise, ID
- 2006 March 22-24, GIS/GPS Training, Caldwell, ID
- 2006 February, "Art of Leadership," National 4-H Headquarters, San Diego, CA
- 2006 February, "Making the Pieces Fit for Professional Success," Western 4-H Institute, Las Vegas, NV
- 2005 National Association of Extension 4-H Agents, Seattle, WA
- 2005 School's Out Washington: Bridge from School to After-School, Vancouver, WA
- 2005 4-H State Leaders' Forum, Post Falls, ID
- 2005 Statewide 4-H Training, Post Falls, ID
- 2005 Grantsmanship Workshop. Moscow, ID
- 2005 America's Promise: Americorps Pre-Service Orientation, Boise, ID
- 2005 GEOG 385, GIS Course at the University of Idaho, Fall Semester, 2005
- 2004 Using Data, Getting Results, Boise, ID
- 2004 Survey of Enacted Curriculum Training, Regions I and II, (Idaho State Department of Education w/ Patrick White), Boise, ID
- 2004 Idaho Science Teachers Association (2004), Lewiston, ID, October 7-8, 2004.