

# HOLLY L. ROOF

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## EDUCATION

- University of Denver, Morgridge College of Education** Denver, CO  
*Doctor of Philosophy, Research Methods and Statistics* June 2019  
Cognate in Gifted and Talented Education.
- Dissertation: *Is a Picture Worth a Thousand Numbers? An Exploration of Understanding and Recall of Data Presentations*
  - Course work: Analysis of Variance (ANOVA), Correlation and Regression, Multi-variate Statistics, Hierarchical Linear Modeling, Structural Equation Modeling, Latent Growth Curve Modeling
- University of Northern Colorado** Greeley, CO  
*Master of Arts, Special Education: Gifted and Talented Emphasis*
- University of Denver, Daniels College of Business** Denver, CO  
*Master of Business Administration*
- Albion College** Albion, MI  
*Bachelor of Arts, Economics and Management, and Visual Arts*

## PROFESSIONAL EXPERIENCE

- University of Denver** Denver, CO  
*Visiting Assistant Teaching Professor* Sept 2019 - Present  
Course assignments:
- Business Statistics, Master Science Business Analytics program
  - Data Mining and Visualization
  - Analytics III: Business Modeling and Analytics
- Adjunct Professor* 2015 - 2018  
Analytics III: Business Modeling and Analytics
- Develop instructional materials for multiple regression, optimization, time series analysis, and simulation modules
  - Plan course activities
  - Teach classes and lectures
  - Grade assignments
  - Assist learners
- Graduate Research Assistant, The Knowledge, Attitudes, and Beliefs Survey (TKABS). (2016 - Present)*  
Principle Investigator: Devadrita Talapatra.
- Conducted Exploratory and Factor Analysis of two data sets using structural equation modeling
  - Performed Regression Analysis
  - Conducted ANOVA
  - Coded and analyzed qualitative data
- Graduate Research Assistant, Learning and Teaching with Learning Trajectories (LT<sup>2</sup>). (2016)*  
Principle Investigators: Douglas Clements and Julie Sarama.
- Coded learning activities
  - Prepared research materials
  - Prepared materials for video shoots
  - Tested newly-designed website

*Graduate Teaching Assistant, Introductory Statistics, (Autumn Quarter 2015)*

- Lectured graduate students on Hypothesis Testing and Simple Effects ANOVA
- Corrected student work
- Assisted learners
- Held office hours

**Aurora Research Institute**

Aurora, CO

*Data Visualization Intern*

June, 2017 – Jan., 2018

- Developed data dashboard for National Council for Behavioral Health
- Trained staff in Tableau software

**Colorado Department of Education**

Denver, CO

*Analyst, Colorado School Emergency Management: Self-Assessment Tool Results, Rounds 1 & 2*

2017 & 2016

- Conducted cross-tab analysis of survey data
- Analyzed qualitative of open-ended survey questions

**Other Experience**

*Community College Instructor*

*Corporate Trainer*

*Distance Learning Instructor*

*Teacher*

**TECHNICAL SKILLS**

**Statistical analysis software:** SPSS, AMOS, JMP, HLM, MPlus, Rstudio, FACETS, WINSTEPS, R, Excel

**Tableau** interactive data visualization software

**Microsoft Office Suite** (expert user of all applications)

**PUBLICATIONS**

Devadrita Talapatra, Gabrielle Wilcox, Holly Roof & Courtney Hutchinson (2019) *Transition planning for students with disabilities: Perspectives of Canadian and American school psychologists*, International Journal of School & Educational Psychology, DOI: 10.1080/21683603.2018.1558136

Roof, H., & Chimuma, L. (2017). *The relationship between reading, math and science achievement: Exploring the growth trajectories over three time points*, (accepted), Educational Research: Theory and Practice (ERTP).

**PRESENTATIONS**

Roof H.L., *A picture is worth a thousand numbers: Using data visualization techniques to support audience understanding of research results*. Paper presentation, Northern Rocky Mountain Educational Research Association Annual Conference, Denver, CO, October 2019.

Roof H.L., *Homeschooling gifted learners, A literature review*. Round table presentation, Northern Rocky Mountain Educational Research Association Annual Conference, Denver, CO, October 2019.

Roof, H.L., *An analysis of Olympic dressage*, Paper presentation (accepted). Cascadia Symposium on Statistics in Sports, Vancouver, Canada, August, 2018.

Roof, H.L., *Implicit bias in dressage scoring: The male advantage*. Paper presentation. Great Lakes Analytics in Sports Conference, University of Wisconsin-Stevens Point, WI, June, 2018.

- Roof H.L., *A Picture is Worth a Thousand Numbers: Using Data Visualization Techniques to Support Audience Understanding of Research Results*. Paper presentation, Northern Rocky Mountain Educational Research Association Annual Conference, Boulder, CO, October, 2017.
- Roof H.L., & Chimuma L., *The Relationship between Reading, Math and Science Achievement: Exploring Growth Trajectories in U.S. Schools over Three Time Points with Moderators*. Paper presentation, Northern Rocky Mountain Educational Research Association Annual Conference, Boulder, CO, October 2017
- AlGhamdi, H., Ghevarghese, R., & Roof, H., *The impact of the information resources on math achievement for American students at fourth grade in TIMSS 2011*. Paper presentation, American Association for Teaching & Curriculum Annual Conference: Denver, CO, October, 2017.
- Roof, H., & Chimuma, L. *The relationship between reading, math and science achievement: Exploring the growth trajectories over three time points*. Paper presentation, American Educational Research Association Annual Conference: San Antonio, TX, 2017.
- Talapatra, D., Wilcox, G., Martin, C., & Roof, H. *School psychologists in transition planning: Filling gaps in knowledge*. Paper presentation, National Association of School Psychologists: San Antonio, TX, 2017.
- Roof, H., & Chimuma, L. *The relationship between reading, math and science achievement: Exploring the growth trajectories over three time points*. Poster presentation, Research Methods and Information Science Department Student Research Conference: Morgridge College of Education, University of Denver, April, 2017.
- Roof, H., & Chimuma, L. *The relationship between reading, math and science achievement: Exploring the growth trajectories over three time points*. Paper presentation, Research Methods and Information Science Department Student Research Conference, Morgridge College of Education, University of Denver, April, 2017.
- Roof, H., *Is a picture worth a thousand numbers?* Paper presentation, University of Denver Research & Performance Summit, 2017
- Roof, H, *Colorado School Emergency Management: Self-Assessment Tool results*. (Invited) Colorado Department of Education. 2016
- Talapatra, D., Hutchinson, C., Roof, H., Wilcox, G., *Influences on school psychologists' transition participation: Knowledge, attitude, and behavior*. Poster presentation, American Psychological Association Annual Conference, 2016.
- Roof, H., *The bee hive: High school football and socialization in Eagle County, Colorado*. Poster presentation, Research Methods and Information Science Department Student Research Conference, Morgridge College of Education, University of Denver, April, 2016.
- Roof, H., *The bee hive: High school football and socialization in Eagle County, Colorado*. Ignite presentation, Research Methods and Information Science Department Student Research Conference, Morgridge College of Education, University of Denver, April, 2016.
- AlGhamdi, H., Ghevarghese, R., & Roof, H., *The impact of the information resources on math achievement for American students at fourth grade in TIMSS 2011*. Poster presentation, Research Methods and Information Science Department Student Research Conference, Morgridge College of Education, University of Denver, April, 2016.
- AlGhamdi, H., Ghevarghese, R., & Roof, H., *The impact of the information resources on math achievement for American students at fourth grade in TIMSS 2011*. Ignite presentation, Research Methods and Information Science Department Student Research Conference, Morgridge College of Education, University of Denver, April, 2016.

Roof, H., *What is a parent to do? Meeting the educational needs of gifted learners at home*. One-hour presentation, Colorado Association for Gifted and Talented Annual Conference, October, 2011.

Roof, H., *Homeschooling gifted learners*. Table Discussion, Colorado Association for Gifted and Talented Annual Conference, October, 2011.

## GRANTS & AWARDS

Graduate Education Dissertation Fellowship, Research and Graduate Education, University of Denver, 2019.

2017 AERA Distinguished Paper Award, SRERA Consortium of State and Regional Educational Research Associations, AERA Annual Conference, 2017.

Distinguished Paper Award, Northern Rocky Mountain Educational Research Association, Annual Conference, 2016.

## PROFESSIONAL SERVICE

Reviewer, Northern Rocky Mountain Education Research Association, 2019 Conference.

Reviewer, Northern Rocky Mountain Education Research Association, 2017 Conference.

Peer Reviewer, University of Denver Research and Performance Summit, 2017.

Reviewer, Northern Rocky Mountain Education Research Association, 2016 Conference.

Reviewer-in-Training, *The Gerontologist*, 2016. Supervisor: Kathy Green, PhD.

## MEMBERSHIP

American Statistical Association

American Evaluation Association

Colorado Evaluation Network

American Education Researchers Association

Northern Rocky Mountain Education Researchers Association

United States Dressage Federation