



Samantha Estrada Aguilera PhD

Assistant Professor

Department of Psychology and Counseling

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EDUCATION

University of Northern Colorado

Ph.D. Program: Applied Statistics and Research Methods

Dissertation Title: Robustness of Rasch Fit Statistics in Dichotomous and Rating Scale Data

Doctoral Minor: Educational Psychology emphasis in Measurement and Assessment

New Mexico State University

M.S. Experimental Statistics

University of Texas at El Paso

B.S. Psychology

B.S. Applied Mathematics

ACADEMIC APPOINTMENT

2019 – Present

Assistant Professor

Department of Psychology and Counseling

College of Education and Psychology

University of Texas at Tyler

TEACHING EXPERIENCE

2019-2021

University of Texas at Tyler Department of Psychology and Counseling

PSYC 2354 Statistics and Laboratory

PSYC 5340 Advanced Statistics and Design

PSYC 6341 Multivariate Statistics

Summer 2019

Adjunct Faculty - Department of Applied Statistics and Research Methods University of Northern Colorado

SRM 670 Introduction to Evaluation: Methods and Practice (1 section, online)

2015-2019

Instructor of Record - AIMS Community College

	BUS 226 Business Statistics (1-2 sections per semester)
	MAT 135 Introduction to Statistics (1-3 sections per semester)
2012-2016	Instructor of Record –School of Mathematical Sciences, University of Northern Colorado STAT 150 Introduction to Statistics (2 sections per semester)
2016-2018	Teaching Assistant - University of Northern Colorado SRM 521 Statistics Computing with SPSS (1 semester 1 section) SRM 700 Advanced Research Methods (1 semester 2 sections online and face to face) SRM 600 Introduction to Graduate Research (1 semester 2 sections online) SRM 684 Research Ethics (1 semester) SRM 680 Introduction to Qualitative Research (1 semester) SRM 627 Survey Research Methods (1 semester)
2008-2010	Teaching Assistant - College of Business, New Mexico State University, Las Cruces NM EST 311 Statistical Applications (1-2 sections during 4 semesters)

REFEREED JOURNAL ARTICLES

- Estrada, S.,** Floren, M., Harding, J., Wroblewski, M. (Accepted; Forthcoming). What is Your Research Question? A Mixed Methods Evaluation of an Academic Statistical Consulting Center. *Evaluation and Program Planning*.
- Zolkoski, S. M., **Estrada, S.,** West, E. M., Holm, J. M., Miller, G. J., Sass, S. M., & Stocks, E. L. (Accepted; Forthcoming). Teacher perceptions of skills, knowledge, and resources needed to promote social and emotional learning in rural classrooms. *The Rural Educator*.
- Estrada, S.** (Accepted; Forthcoming). Drawing Normal Curves: A visual analysis to evaluate writing-to- learn assignments in an introductory statistics course in a sample of community college students. *The Qualitative Report*.
- Estrada, S.** (Accepted; Forthcoming) Evaluating the Impact of Multidimensionality on Type I and Type II Error Rates Using the Q-Index Item Fit Statistic for the Rasch Model. *Journal of Applied Measurement*.
- Harding, J., **Estrada, S.,** & Floren, M. (2019). What Makes a Good Research Consultant? *The Qualitative Report*, 24(5), 948-962. Retrieved from <https://nsuworks.nova.edu/tqr/vol24/iss5/1>
- Bushmaker, R., Corey, K., Lalonde, T., Dunn, J., **Estrada, S.** (2019). Evaluation of a New Helicopter Crew Transport Fatigue Assessment. *Air Medical Journal*. DOI: [10.1016/j.amj.2018.11.006](https://doi.org/10.1016/j.amj.2018.11.006)

- Lu, P-C., **Estrada, S.**, & Pulos, S. (2018). Psychometric Evaluation of the Revised Current Statistics Self-efficacy (CSSE-30) in a Graduate Student Population Using Rasch Analysis. *Journal of Applied Measurement*, 19(2).
- Estrada, S.** (2017). Using R for Qualitative Research. *The Qualitative Report*, 22 (4), 956-968. Retrieved from <https://nsuworks.nova.edu/tqr/vol22/iss4/2>
- Estrada, S.** (2016). Families Healing Together: Exploring a Family Recovery Online Course. *The Qualitative Report*, 21(7), 1216-1231. Retrieved from <https://nsuworks.nova.edu/tqr/vol21/iss7/3>
- Rue, L., **Estrada, S.**, Floren, M., and MacKinnon, K. (2016). Formative Evaluation: Developing measures for online family mental health recovery education. *Evaluation and Program Planning*, 55, 27-34. DOI: [10.1016/j.evalprogplan.2015.11.004](https://doi.org/10.1016/j.evalprogplan.2015.11.004)

Manuscripts Under Review

BOOKS

- Estrada, S.** (2017). Appendix E: The use of the Internet and Skype © in Qualitative Research. Lahman, M. K. (Eds) *Ethics in Social Research: Becoming Culturally Responsive*. Thousand Oaks, CA: SAGE.

BOOK REVIEW

- Estrada, S.** (Fall, 2018). Teaching Statistics: A Bag of Tricks [Review of the book by Gelman, A., & Nolan, D.]. *Signature Magazine*, 5.

SELECTED CONFERENCE PROCEEDINGS

- Tsai, C. L., **Estrada, S.**, Flores, L. (2020). *Academic Motivation, Persistence, and Learning Outcomes among First-Generation College Students*. Poster to be presented at the American Psychological Association in Washington D.C.
- Estrada, S.** (May, 2020). *Drawing Normal Curves: A visual thematic analysis of student evaluation of writing-to-learn assignments in an introductory statistics course in a sample of community college students*. Poster presented at the Electronic Conference on Teaching Statistics.
https://www.causeweb.org/cause/ecots/ecots20/posters/3-01#disqus_thread
- Estrada, S.** (April, 2020; Canceled due to COVID-19). *Evaluating the Impact of Multidimensionality on Type I and Type II Error Rates Using the Q-Index Item Fit Statistic for the Rasch Model*. Paper to be presented at the American Educational Research Association in San Francisco, CA (

- Merchant, W., Smith, G., **Estrada, S.**, & Hayslip, B. (November, 2018). *Psychological Difficulties Among Custodial Grandchildren: Whose View Really Matters?* Poster presented at the Gerontological Society of America in Boston, MA.
- Tsai, C., **Estrada, S.**, & Cho, M. (October, 2018). *Evaluating the Online Learning Self-Efficacy Scale (OLSES): Optimizing rating scale effectiveness.* Poster presented at the American Evaluation Association Annual Conference in Cleveland, OH.
- Estrada, S.**, Perez-Abreu, R. A. (2018). *%Q-INDEX: A SAS ® Code for a Conditional Item-Fit Index for the Rasch Model.* Poster presented at the 2018 SAS Global Forum in Denver, CO.
- Estrada, S.**, (November, 2015) *Families Healing Together: A Qualitative Case Study.* Poster presented at the American Evaluation Association meeting in Chicago, IL.
- Estrada, S.**, (May, 2015). *Correcting for Survey Nonresponse Using the Admitted Students Questionnaire.* Poster presented at the Association for Institutional Research in Denver, CO.
- Estrada, S.**, Floren, M., Rue, L. Ph.D. (October, 2014). *Formative Evaluation: Developing Measures for Online Family Mental Health Recovery.* Paper presented at the American Evaluation Association meeting in Denver, CO.
- Lu, P-C., **Estrada, S.**, & Pulos, S. Ph.D (April, 2014). *Psychometric Evaluation of the Revised Current Statistics Self-efficacy (CSSE-30) in a Graduate Student Population Using Rasch Analysis.* Presented in the roundtable session "Statistics Education: Insights into Teaching and Learning" at the American Education Research Association in Philadelphia, PA.
- Estrada, S.**, Lu, P-C. & Fernandez, N. P. Ph.D. (May, 2013). *Social Smoker Status of a Hispanic College Student Sample.* Poster presented at the Association for Psychological Science meeting in Washington D.C.

CONFERENCE PRESENTATIONS

- Estrada, S.**, Floren, M., Rue, L. Ph.D. (Fall, 2014). *Formative Evaluation: Developing Measures for Online Family Mental Health Recovery.* Paper presented at the American Evaluation Association meeting in Denver, CO.
- Lu, P-C., & **Estrada, S.**, (Fall, 2013). *Psychometric Evaluation of the Revised Current Statistics Self-efficacy (CSSE-30) in a Graduate Student Population Using Rasch Analysis.* Presented at the American Statistical Association Colorado-Wyoming Chapter meeting in Aurora, CO.
- Estrada, S.**, & Morera O. F. (Spring, 2008). *Assessing Gender Differences in Social Problem Solving.* Honors Thesis presentation at the University of Texas at El Paso, El Paso, TX.
- Estrada, S.**, & Birditt, K. (Summer, 2007). *Gender Differences in Relationship Quality with Mothers Across Adulthood.* Presentation given at the Research Symposium at Institute for Social Research, Ann Arbor. MI.

RESEARCH AND CONSULTING EXPERIENCE

2011-2017	Statistical Consultant - Research Consulting Lab at the University of Northern Colorado Assisted to graduate students and faculty with research design as well as a variety of research designs and statistical analyses. Workshops I facilitated: <ul style="list-style-type: none"> o Introduction to NVIVO, Transcribing in NVIVO, Introduction to SAS, Introduction to R for Qualitative Data Analysis, Introduction to SPSS
2006-2008	Research Assistant - Border Contraceptive Access Study, College of Health Sciences University of Texas at El Paso, El Paso TX Recruited and interviewed via telephone surveys eligible women for Border Contraceptive Access Study. Assisted with clerical and office work.
Summer 2007	Research Intern - Survey Research Center at the Institute for Social Research, University of Michigan, Ann Arbor, MI Coursework on Analysis of Survey Data Developed an individual project using longitudinal data comparing gender differences in relationship quality scores among parent-child relationships.
Summer 2006	Bilingual Interviewer - Paso del Norte Collaborative Study (Phase III), Texas Department of State Health Services and the Migrants Clinicians Network, El Paso TX. Screening of participant's eligibility according to drug use and habits. Conducted face-to-face interviews with participants according to the study's questionnaire and protocol.

GRANT ACTIVITY

Funded

Agency: Southwestern Educational Research Association \$1000 funded
Project: Exploring First-generation College Students' Academic Motivation, Academic Success, and Persistence: A Longitudinal Study
Role: Estrada, S., Tsai, C.L., Flores, L.

Agency: 2016 University of Northern Colorado Office of Assessment \$1500 funded.

Project: Needs assessment evaluation of the Research Consulting Lab
Role: Principal Investigator - **Estrada, S.**, Floren, M., Lalonde, T. (2016)

Grant Reviewer

Agency: AIMS Community College

Project: 2016-2021 National Professional Development Program Proposal
 \$495,950

Role: Grant reviewer, provided methodological advice.

AWARDS

2020	SERA Early Career Research Award, \$1000
2019	Society for the Teaching of Psychology Early Career Travel Grant,
2018	\$250
2018	Travel Award UNC Graduate Student Association, \$600
2013-2014	Faculty, Teaching and Learning Center Professional Development
2016	Award, \$1199
2016	Allen & Lily Huang Global Citizenship Scholarship, \$450
2015	Faculty, Teaching and Learning Center Professional Development
2014	Award, \$150
2014	Honors Graduate Scholar of the College of Education
2013	Travel Award UNC Graduate Student Association, \$100
2009-2010	Student Travel Award Colorado Public Health Association
2008	Reaching the Pinnacle Scholarship, \$1500
2006	Outstanding Academic and Research Achievement in Psychology
2005-2008	Model Institutions of Excellence/Women in Science and
2005-2008	Engineering, \$500
	Jimmy and Yolanda Janacek Scholarship, \$3000
	Benito Juarez Award, \$500
2004	

PROFESSIONAL DEVELOPMENT

Workshop, "How to Write About Qualitative Research" *American Educational Research Association, Virtual Research Learning Series* (August, 2020)

Workshop, "Introduction to matching and propensity score analysis" *Percontor Educational Research and Training*, (November, 2020)

Workshop, "Non-Randomized Groups: Implications and Strategies Using Propensity Score Analysis" *Southwest Educational Research Association* (February, 2021)

PROFESSIONAL AFFILIATIONS

American Evaluation Association

American Educational Research Association

American Psychological Association

CONSULTING

Rachel Jenks – Research Seminar Project

Greyson Givens – Honors Project

Reilly Hornbrook – Honors Project

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