

EDUCATION

PhD Educational Psychology, University of Minnesota Quantitative Methods in Education, Statistics Education Advisors: Robert delMas and Andrew Zieffler Committee Members: Panayiota Kendeou and Erin Baldinger	2023
MA Educational Psychology, University of Minnesota Psychological Foundations of Education, Learning and Cognition Advisors: Jeffrey K. Bye and David DeLiema	2023
MS Statistics, George Washington University	2013
BS Mathematics and Economics, University of Illinois Pure Mathematics	2008

POSITIONS

University of Illinois at Urbana-Champaign Department of Statistics, Champaign, IL Teaching Assistant Professor	2023 – present
Health Resources and Services Administration Division of Policy and Data, HIV/AIDS Bureau, Rockville, MD Chief (GS-1530-14), Data Management and Analysis Branch Health Statistician (GS-1530-13), Data Management Branch	2015 – 2016 2014 – 2015
US Census Bureau Decennial Statistical Studies Division, Suitland, MD Mathematical Statistician (GS-1529-9/11/12), Quality Assurance Branch National Processing Center, Jeffersonville, IN Mathematical Statistician (GS-1529-7/9/11), Statistical Methods Section	2010 – 2014 2009 – 2010

PUBLICATIONS (‡FORMER STUDENT OR MENTEE)

5. Ancel, E.E.‡, Smith, M.L.‡, **Rao, V.N.V.**, & Munson, B. (2023). Relating Automated Acoustic Measures and Listener Ratings of Children's Productions of Word-Initial /ɪ/ and /w/. *Journal of Speech, Language, and Hearing Research*, 66(9), 3413-3427.
https://doi.org/10.1044/2023_JSLHR-22-00713

4. Running, K., Coddling, R.S., Varma, S., **Rao, V.N.V.**, & Wackerle-Hollman, A. (2023). Comparing the Effects of Concepts-First and Iterative Fraction Instruction Sequences: A Randomized Control Trial. *The Elementary School Journal*, 124(1), 85-108. <https://doi.org/10.1086/725730>
3. **Rao, V.N.V.**, Legacy, C., Zieffler, A., & delMas, R. (2023). Designing a sequence of activities to build reasoning about data and visualization. *Teaching Statistics*, 45(S1), S80-S92. <http://doi.org/10.1111/test.12341>
2. DeLiema, D., Hufnagle, A.S., **Rao, V.N.V.**, Baker, J., Valerie, J., & Kim, J. (2023). Methodological considerations and innovations at the intersection of video-based research traditions. *International Journal of Research and Method in Education*, 46(1), 19-36. <https://doi.org/10.1080/1743727X.2021.2011196>
1. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2022). Categorical perception of p-values. *Topics in Cognitive Science*, 14(2), 414-425. <https://doi.org/10.1111/tops.12589>

PUBLICATIONS UNDER REVIEW ([‡]FORMER STUDENT OR MENTEE)

3. **Rao, V.N.V.**, Bye, J.K., & Varma, S (in revision). *The psychological reality of the learned “ $p < 0.05$ ” barrier*. Cognitive Research: Principles and Implications.
2. Legacy, C., Zieffler, A., **Rao, V.N.V.**, & delMas, R. (under review). Vampires and star-crossed lovers: Secondary teachers’ reasoning about the connections between multivariate data and visualization. *Statistics Education Research Journal*.
1. Simpson, M.[‡], & **Rao, V.N.V.** (under review). *Association between generational trauma and progressive dementia types*. Minnesota Undergraduate Research & Academic Journal.

PUBLICATIONS IN PREPARATION

2. **Rao, V.N.V.**, Mader, J., & Friedlander, E. (in preparation). *A framework for the design of gender inclusive activities in statistics and quantitative methods courses*.
1. **Rao, V.N.V.**, Riegelman, A., Hurtado, I. L., Lisinker, R., & delMas, R. (in preparation). *A review of research uses of the Comprehensive Assessment of Outcomes in Statistics*. Retrieved from osf.io/yf3zh.

GRANTS AWARDED

2. Title: An Authentic Introduction to Data and Statistics
Agency: University of Illinois University Library
Source: Open Educational Resources Incentive Program
Role: Project Director
Award: \$6000

1. Title: Developing Gender Inclusive Activities for Quantitative Methods Courses
 Agency: Association for Psychological Science
 Source: Fund for Teaching and Public Understanding of Psychological Science
 Role: Project Director
 Award: \$5000

HONORS, AWARDS, AND FELLOWSHIPS

Quantitative Methods in Education Graduate Student Research Award, \$100	2023
University of Minnesota Graduate School Excellence in Teaching Award, \$500	2023
Quantitative Methods in Education Graduate Student Teaching Award, \$100	2022
UMN Thank-a-Teacher Program, recipient of 14 letters	2020 – 2022
Best Presentation, 36th Annual PsyPAG Conference	2021
Cognitive Science Society Disciplinary Diversity & Integration Award, \$1,000	2021
Quantitative Methods in Education Graduate Student Leadership Award, \$100	2019
CEHD Graduate Student Fellowship, \$25,000	2018 – 2019
Russell W Burris Memorial Fellowship in Educational Psychology, \$5,000	2018 – 2019
Outstanding Group Performance in Data Dissemination, HRSA	2015
Outstanding Group Performance in Communications Innovations, HRSA	2015
Data Request Process Improvement, HRSA, \$1,000	2015
Customer Service Process Improvement, HRSA, \$1,000	2014
Excellence in Quantitative Analysis, HRSA, \$1,000	2014
Excellence in Innovative Analyses, US Census Bureau, \$1,000	2011
Data Quality Process Improvement, US Census Bureau, \$500	2010
<i>Census2010</i> Operations Management, US Census Bureau, \$500	2010

CONFERENCE PROCEEDINGS PAPERS

4. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2022). Graduate students' effect size categorical boundaries. In S.A. Peters, L. Zapata-Cardona, F. Bonafini, & A. Fan (Eds.), *Proceedings of the 11th International Conference on Teaching Statistics* (pp. 1-6). <https://doi.org/10.52041/iase.icots11.T3C2>.
3. Marupudi, V., Harsch, R.M., Park, J., Bye, J.K., **Rao, V.N.V.**, & Varma, S. (2022). Use of clustering in human solutions of the traveling salesperson problem. In J. Culbertson, A. Perfors, H. Rabagliati, & V. Ramenzoni (Eds.), *Proceedings of the 44th Annual Conference of the Cognitive Science Society* (pp. 424-430). <https://escholarship.org/uc/item/3t16j57m>.
2. Marupudi, V., Harsch, R.M., **Rao, V.N.V.**, Bye, J.K., Park, J., & Varma, S. (2021). The role of clustering in the efficient solution of small Traveling Salesperson Problems. In T. Fitch, C. Lamm, H. Leder, & K. Tessmar (Eds.), *Proceedings of the 43rd Annual Conference of the Cognitive Science Society* (pp. 1865-1871). <https://escholarship.org/uc/item/5q76r06x>.

1. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2021). Categorical perception of p-values. In T. Fitch, C. Lamm, H. Leder, & K. Tessmar (Eds.), *Proceedings of the 43rd Annual Conference of the Cognitive Science Society* (pp. 168-173). <https://escholarship.org/uc/item/7hw3s1rs>.

CONFERENCE PRESENTATIONS ([‡]FORMER STUDENT OR MENTEE)

18. **Rao, V.N.V.**, Mader, J.[‡], & Friedlander, E. (2023, July). *A framework for the design of gender inclusive activities* [Paper Presentation]. 13th Annual Satellite Conference of the International Association for Statistical Education (IASE), Toronto, Ontario, Canada.
17. May, N.[‡], & **Rao, V.N.V.** (2023, June). *Cooperative learning in an online asynchronous statistics course: Instructor and student perspectives* [Presentation]. 5th Annual University of Minnesota Academic Technology SHAREcase, Minneapolis, Minnesota.
16. **Rao, V.N.V.**, Mader, J.[‡], & Friedlander, E. (2023, June). *Gender Inclusivity from the Perspective of Non-Cisgender Students* [Lightning Talk]. Consortium for the Advancement of Undergraduate Statistics Education (CAUSE) Research Satellite, State College, Pennsylvania.
15. Foti, S. J., Jiroutek, M. R., Le, L., & **Rao, V.N.V.** (2023, June). *Biostatistical Literacy: What is it, and how can we teach it?* [Breakout Session]. United States Conference on Teaching Statistics (USCOTS), State College, Pennsylvania.
14. Chen, B., Bartucz, J., Scharber, C., **Rao, V.N.V.**, & DeLiema, D. (2023, April). *Towards a framework for justice-oriented data science education in K-12 schools* [Paper Presentation]. Annual Meeting of the American Educational Research Association (AERA), Chicago, Illinois.
13. **Rao, V.N.V.** & Carpenter, Z. (2022, October). *Openness and Uncertainty: A forum on the psychology of science* [Forum]. Seventh Annual Learning Sciences Graduate Student Conference (LSGSC), Bloomington, Indiana.
12. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2022, September). *Graduate students' effect size categorical boundaries* [Paper Presentation]. The Eleventh International Conference on Teaching Statistics (ICOTS-11), Rosario, Argentina.
11. Marupudi, V., Harsch, R.M., Park, J., Bye, J.K., **Rao, V.N.V.**, & Varma, S. (2022, July). *Use of clustering in human solutions of the traveling salesperson problem* [Paper Presentation]. Annual Meeting of the Cognitive Science Society, Toronto, Canada.
10. **Rao, V.N.V.**, Bailey, N., Bartucz, J., & Chávez, C. (2022, May). *Social Justice is more than just using critical contexts: A panel on embedding social justice into curricula* [Breakout Session]. Electronic Conference on Teaching Statistics (eCOTS).
9. Legacy, C., Zieffler, A., delMas, R., & **Rao, V.N.V.** (2022, January). *Data to graphs and back: Secondary teachers' reasoning about the aesthetic mappings that link data and visualizations* [Paper Presentation]. 12th International Research Forum on Statistical Reasoning, Thinking, and Literacy (SRTL-12), online.

8. Torrey-White, K.[‡], Gary, L., Bergson, A., Flynn, J., Driehorst, M., Siekman, R., Prekker, F., Slusher, T., Maynard, K., Paetox, G., **Rao, V.N.V.**, Hendrickx, L., & Bjorklund, A. (2021, November). *A Quality Improvement Project Using Simulation to Improve Nursing Confidence and Skills and Promote Teamwork During High Acuity, Low Occurrence Clinical Events in the Pediatric Intensive Care Unit* [[Quick Shot Presentation](#)]. Annual Meeting of the Pediatric Trauma Society, Baltimore, MD.
7. Society for the Teaching of Psychology's Presidential Task Force on Statistical Literacy, Reasoning, and Thinking*. (2021, August). *STP's Statistical Literacy, Reasoning, and Thinking Presidential Task Force's recommendations and resources for integrating psychological statistics across the undergraduate curriculum* [[Symposium](#)]. Annual Meeting of the American Psychological Association (APA), San Diego, California.
*16 scholars (chairs, followed by alphabetical order): Hartnett, J. (chair), Freeman, E. (co-chair), Neufeld, G. (co-chair), Aguilera, S.E., Geodert, K., Karazsia, B., Naufel, K., Peters, J., **Rao, V.N.V.**, Reusser, A.Y., Sathy, V., Shaw, R., Soicher, R., Smith, T., Ullman, J., & Woodward, A.
6. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2021, July). *More than just a name: The psychological effects of 'Statistical Significance'* [[Oral presentation](#)]. The 36th Annual Psychology Postgraduate Affairs Group Conference (PsyPAG), online.
5. The Link Tank* (2021, July). *The promise of video-based research methods in psychology* [[Oral presentation](#)]. The 36th Annual Psychology Postgraduate Affairs Group (PsyPAG) Conference, online.
*6 scholars (alphabetical order): Baker, J., DeLiema, D., Hufnagle, A., Kim, J., **Rao, V.N.V.**, & Valerie, J.
4. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2021, July). *Categorical perception of p-values* [[Paper presentation](#)]. Annual Meeting of the Cognitive Science Society, Vienna, Austria.
3. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2021, April). *The psychological reality of the learned " $p < 0.05$ " barrier* [[Paper presentation](#)]. Annual Meeting of the American Educational Research Association (AERA), virtual.
2. **Rao, V.N.V.** (2020, November). *A Null Hypothesis Story* [[Lightning Talk](#)]. Fifth Annual Learning Sciences Graduate Student Conference, Madison (LSGSC), Wisconsin.
1. **Rao, V.N.V.** (2019, September). *Towards a framework for context selection in statistics instruction* [[Oral presentation](#)]. Fourth Annual Learning Sciences Graduate Student Conference (LSGSC), Evanston, Illinois.

CONFERENCE POSTERS ([‡]FORMER STUDENT OR MENTEE)

30. **Rao, V.N.V.**, Mader, J. [‡], & Friedlander, E. (2023, December). *A framework for the design of gender inclusivity activities* [Poster Presentation]. Teaching to Enhance Research Methods & Statistics in Psychology (PsychTERMS) 2023 Virtual Conference, online.

29. **Rao, V.N.V.** (2023, December). *Setting the stage for statistics learning* [Poster Presentation]. Teaching to Enhance Research Methods & Statistics in Psychology (PsychTERMS) 2023 Virtual Conference, online.
28. Jiroutek, M. R., Le, L., Foti, S. J., & **Rao, V.N.V.** (2023, June). *Using Collaborative Keys to promote active learning and student engagement for in-person or online courses* [Posters and Beyond Presentation]. United States Conference on Teaching Statistics (USCOTS), State College, Pennsylvania.
27. Friedlander, E., Mader, J. [‡], & **Rao, V.N.V.** (2023, June). *Gender Inclusive Activities* [Posters and Beyond Presentation]. United States Conference on Teaching Statistics (USCOTS), State College, Pennsylvania.
26. **Rao, V.N.V.**, Mader, J. [‡], & Friedlander, E. (2023, June). *Gender Inclusivity from the Perspective of Non-Cisgender Students* [Poster Presentation]. Consortium for the Advancement of Undergraduate Statistics Education (CAUSE) Research Satellite, State College, Pennsylvania.
25. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2022, August). *Categorical boundaries in graduate students' judgment of effect sizes* [Poster Presentation]. Annual Meeting of the American Psychological Association (APA), Minneapolis, Minnesota.
24. Marupudi, V., Harsch, R. M., Park, J., **Rao, V.N.V.**, Bye, J. K. & Varma, S. (2022, June). *Human use of clustering to solve traveling salesperson problems* [Poster Presentation]. Annual Conference of the Mathematical Cognition and Learning Society (MCLS), Antwerp, Belgium.
23. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2022, May). *Graduate students in the psychological sciences perceive at categorical boundary when processing p-values across the .05 boundary* [Poster Presentation]. Annual Meeting of the American Psychological Society (APS), Chicago, Illinois.
22. Simpson, M. [‡], & **Rao, V.N.V.** (2022, April). *Association between Generational Trauma and Progressive Dementia Types* [Poster Presentation]. University of Minnesota Center for Cognitive Sciences Spring Research Day, Minneapolis, Minnesota.
21. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2022, April). *Graduate students in the psychological sciences perceive at categorical boundary when processing p-values across the .05 boundary* [Poster Presentation]. University of Minnesota Center for Cognitive Sciences Spring Research Day, Minneapolis, Minnesota.
20. Ancel, E.E. [‡], Smith, M.L. [‡], **Rao, V.N.V.**, & Munson, B. (2022, April). *Does F3-F2 Distance predict transcriptions of preschoolers' /r/ productions?* [Poster Presentation]. University of Minnesota Center for Cognitive Sciences Spring Research Day, Minneapolis, Minnesota.
19. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2022, February). *Graduate students' effect size category boundaries* [[Poster Presentation](#)]. University of Minnesota Department of Educational Psychology Graduate Student Research Day, Minneapolis, Minnesota.

18. **Rao, V.N.V.** (2022, February). *The logic of statistical tests: A historical analysis* [[Poster Presentation](#)]. University of Minnesota Department of Educational Psychology Graduate Student Research Day, Minneapolis, Minnesota.
17. Ancel, E.E.[‡], Smith, M.L.[‡], **Rao, V.N.V.**, & Munson, B. (2021, November). *Does F3-F2 Distance predict transcriptions of preschoolers' /r/ productions?* [Poster Presentation]. 181st Meeting of the Acoustical Society of America (ASA), Seattle, Washington. <https://doi.org/10.1121/10.0007949>
16. **Rao, V.N.V.**, Legacy, C., Brown, J.M., Zieffler, A., & delMas, R. (2021, August). *Data-to-graphs and back: Secondary teachers' reasoning about aesthetic mappings in data visualization* [[Poster presentation](#)]. 12th Annual Satellite Conference of the International Association for Statistical Education (IASE), online. <https://iase-web.org/conference/satellite21/>
15. The Link Tank*. (2021, August). *Teaching statistics students psychology: Using podcasts to integrate context and content* [[Poster presentation](#)]. Annual Meeting of the American Psychological Association (APA), San Diego, California.
*4 scholars (alphabetical order): Koenen, R., **Rao, V.N.V.**, Rubin, N., & Sullivan, M.
14. McNamara, A., Beckman, M., Legacy, C., Zieffler, A., delMas, R.C., & **Rao, V.N.V.** (2021, August). *Integrating computation in statistics: Instructional decisions for Teaching R* [Speed presentation]. Joint Statistical Meetings (JSM), Seattle, Washington.
13. Marupudi, V., Harsch, R.M., **Rao, V.N.V.**, Bye, J.K., Park, J., & Varma, S. (2021, July). *The role of clustering in the efficient solution of small Traveling Salesperson Problems* [[Poster presentation](#)]. Annual Meeting of the Cognitive Science Society, Vienna, Austria.
12. **Rao, V.N.V.**, Legacy, C.A., & Zieffler, A.S. (2021, June). *Students' perspectives on entering a data science career after experiential learning with local community organizations* [[Poster presentation](#)]. United States Conference on Teaching Statistics (USCOTS), online.
11. McNamara, A., Zieffler, A., Beckman, M., Legacy, C., Basner, E.B., delMas, R., & **Rao, V.N.V.** (2021, June). *Computing in the statistics curriculum: Lessons learned from the educational sciences* [[Poster presentation](#)]. United States Conference on Teaching Statistics (USCOTS), online.
10. Running, K., Coddington, R.S., **Rao, V.N.V.**, Goodridge, A., Kromminga, K.R., Will, K., Sullivan, M., & Varma, S. (2021, February). *Determining effective fraction instruction sequences* [[Poster presentation](#)]. Annual Meeting of the National Association of School Psychologists (NASP), Salt Lake City, Utah.
9. **Rao, V.N.V.**, Running, K., & Coddington, R.S. (2021, February). *Choosing a statistical model amidst ceiling and floor effects* [[Poster presentation](#)]. Annual Meeting of the National Association of School Psychologists (NASP), Salt Lake City, Utah.
8. **Rao, V.N.V.** (2020, September). *Investigating multidimensionality in the Comprehensive Assessment of Outcomes in Statistics* [[Poster presentation](#)]. Annual Meeting of the National Council of Measurement in Education (NCME), San Francisco, California.
7. Marupudi, V., **Rao, V.N.V.**, Park, J., Harsch, R., Bye, J.K., & Varma, S. (2020, July). *Clustering as a precursor to efficient and near-optimal solution of small instances of the Traveling*

Salesperson Problem (TSP) [[Poster presentation](#)]. Annual Meeting of the Cognitive Science Society, Toronto, Canada.

6. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2020, June). *Mental representation of p-values: Does a categorical perception effect exist?* [[Poster presentation](#)]. University of Minnesota Center for Cognitive Sciences Spring Research Day, Minneapolis, Minnesota.
5. Marupudi, V., **Rao, V.N.V.**, Park, J., Harsch, R., Bye, J.K., & Varma, S. (2020, June). *Clustering as a core mathematical ability for solving graph-theoretic problems such as the Traveling Salesperson Problem (TSP)* [[Poster presentation](#)]. Annual Conference of the Mathematical Cognition and Learning Society (MCLS), Dublin, Ireland. (conference cancelled)
4. **Rao, V.N.V.** & Chávez, C. (2020, February). *On the Utilization of the Comprehensive Assessment of Outcomes in Statistics* [[Poster presentation](#)]. University of Minnesota Department of Educational Psychology Graduate Student Research Day, Minneapolis, Minnesota.
3. Marupudi, V., **Rao, V.N.V.**, Park, J., Harsch, R., Bye, J.K., & Varma, S. (2020, February). *The consistency of human clustering* [[Poster presentation](#)]. University of Minnesota Department of Educational Psychology Graduate Student Research Day, Minneapolis, Minnesota.
2. The Link Tank*. (2020, February). *A cognitive behavioural therapy lesson design for statistics anxiety* [[Poster presentation](#)]. University of Minnesota Department of Educational Psychology Graduate Student Research Day, Minneapolis, Minnesota.
*5 scholars (alphabetical order): Baker, J., DeLiema, D, Loiselle, T., **Rao, V.N.V.**, & Yang, W.
1. **Rao, V.N.V.** (2019, May). *Utilizing distributed practice assignments to develop students' statistical literacy in an online class* [[Poster presentation](#)]. United States Conference on Teaching Statistics (USCOTS), State College, Pennsylvania.

CONFERENCE PROCEEDINGS ABSTRACTS

4. **Rao, V.N.V.**, & Carpenter, Z. (2022). Openness and Uncertainty: A forum on the psychology of science. In *Proceedings of the 2022 Learning Sciences Graduate Student Conference* (pp. 93-94). Retrieved from <https://www.lsgsc.org/proceedings>.
3. **Rao, V.N.V.**, Legacy, C., Brown, J.M., Zieffler, A., & delMas, R. (2021). Data-to-graphs and back: Secondary teachers' reasoning about aesthetic mappings in data visualization. In R. Helenius & E. Falck (Eds.), *Statistics Education in the Era of Data Science: Proceedings of the Satellite Conference of the International Association for Statistical Education*. https://iase-web.org/Conference_Proceedings.php.
2. Marupudi, V., **Rao, V.N.V.**, Park, J., Harsch, R., Bye, J.K., & Varma, S. (2020). Clustering as a precursor to efficient and near-optimal solution of small instances of the Traveling Salesperson Problem (TSP). In S. Denison, M. Mack, Y. Xu, & B.C. Armstrong (Eds.), *Proceedings of the 42nd Annual Conference of the Cognitive Science Society* (p. 1342). <https://cogsci.mindmodeling.org/2020/>.

1. **Rao, V.N.V.** (2019). Towards a framework for the selection of contexts in statistics instruction. In *Proceedings of the 2019 Learning Sciences Graduate Student Conference* (pp. 213-215). Retrieved from <https://www.lsgsc.org/proceedings>.

OTHER PUBLICATIONS AND MANUSCRIPTS

8. **Rao, V.N.V.** (2023). *A Multi-Modal Multiple Descriptive Case Study of Graduate Students' Statistical Thinking in Statistical Tests Seven Months After Completing a Simulation-Based Introductory Level Course*. Doctoral dissertation. University of Minnesota, Minneapolis.
7. Zieffler, A., & Catalysts for Change. (2022). *Pensamiento Estadístico: Un Enfoque de Simulación para Modelar la Incertidumbre* (4.3rd ed., P. Vivas Corrales & **V.N.V. Rao**, Trans.). Minneapolis, MN: Catalyst Press. <http://RaoVNV.github.io/pensamiento-estadistico/>
6. **Rao, V.N.V.** (2022). *Graduate students' thinking in statistical tests: A multi-modal multiple descriptive case study*. Unpublished dissertation prospectus, University of Minnesota, Minneapolis.
5. Neufeld, G., Estrada Aguilera, S., Goedert, K., Peters, J., **Rao, V.N.V.**, Sathy, V., Smith, T., & Hartnett, J. (2022). *Statistical Literacy, Reasoning, and Thinking: Guidelines 2.0 – Presidential Task Force Subcommittee on Introductory Psychology Statistical Literacy*. Society for the Teaching of Psychology. <http://teachpsych.org/page-1863179>
4. **Rao, V.N.V.** (2021, April). From happy hour to co-author: How I found an academic home. *SPARK*. Available at sparkezone.com.
3. **Rao, V.N.V.** (2021). *Students' understanding and reasoning of simulation-based significance testing*. [Unpublished preliminary oral exam paper](#), University of Minnesota, Minneapolis.
2. **Rao, V.N.V.** (2020). *Interpretations and uses of the Comprehensive Assessment of Outcomes in Statistics*. [Unpublished preliminary written exam paper](#), University of Minnesota, Minneapolis.
1. **Rao, V.N.V.** (2019). *Investigating multidimensionality in student responses to the Comprehensive Assessment of Outcomes in Statistics*. [Unpublished pre-dissertation paper](#), University of Minnesota, Minneapolis.

INVITED TALKS

6. Le, L., Jiroutek, M., **Rao, V.N.V.**, & Foti, S. (2024, January). *Biostatistical Literacy: What is it, and how can we teach it?* [Invited Seminar]. Royal Statistical Society Teaching Section, online. Sponsored by Dr. Elinor Jones.
5. **Rao, V.N.V.** (2023, October). *Intro Stats in a GPT World* [Invited Talk]. Mathematics Learning Research Group, Michigan State University, East Lansing, Michigan. Sponsored by Dr. Jenny Green.

4. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2022, September). *The Psychology of Statistics* [[Invited Talk](#)]. Stochastic Modeling and Computational Statistics, Pennsylvania State University, State College, Pennsylvania. Sponsored by Dr. Matthew Beckman and Dr. Stephen Berg.
3. **Rao, V.N.V.** (2022, May). *Thinking about thinking: A preliminary analysis of the use of eye tracking in the study of statistical thinking* [[Invited Talk](#)]. Teaching and Learning Lab, University of California Los Angeles, Los Angeles, California. Sponsored by Dr. Jim Stigler and Dr. Karen Givvin.
2. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2021, October). *Statistical Significance and the Categorization of p-values* [[Invited Talk](#)]. Percepts and Concepts Lab, Indiana University, Bloomington, Indiana. Sponsored by Dr. Robert Goldstone.
1. **Rao, V.N.V.**, Bye, J.K., & Varma, S. (2021, October). *Statistical Significance and the Categorization of p-values* [[Invited Talk](#)]. Psychological Foundations of Education Research Talks, University of Minnesota, Minneapolis, Minnesota. Sponsored by Dr. Martin Van Boekel.

WORKSHOPS

2. **Rao, V.N.V.** (2023, May). *Principles of Statistical Inference for Program Evaluation* [[Workshop](#)]. United Nations Secretariat, Office of Internal Oversight Services, Inspection and Evaluation Division, online. Sponsored by Dr. Hanife Cakici and Angela Arévalo.
1. **Rao, V.N.V.** (2021, June). *Simulation-based Inference with R for ANOVA Design Experiments* [[Workshop](#)]. Psychology Postgraduate Affairs Group, Data Simulation Summer School, online. Sponsored by Dr. Oliver Clark and Jenny Terry.

TEACHING EXPERIENCE

University of Illinois, Urbana, IL

Teaching Assistant Professor, Department of Statistics
STAT 100 – Statistics (2 sections)

2023 – present

University of Minnesota, Minneapolis, MN

Instructor, Department of Educational Psychology
EPSY 5261 – Introductory Statistical Methods (6 sections)
EPSY 3264 – Basic and Applied Statistics (2 section)

2019 – 2022

2021 – 2022

Co-Instructor, Division of Biostatistics

PUBH 6451 – Biostatistics II (Spring 2020)

Teaching Assistant, Department of Educational Psychology

EPSY 3264 – Basic and Applied Statistics (Spring 2021)

EPSY 8264 – Advanced Multiple Regression Analysis (Fall 2020)

EPSY 5261 – Introductory Statistical Methods (3 sections)

2019 – 2021

George Washington University, Washington, DC

Course Director, Department of Clinical Research and Leadership

HSCI 2117 – Introduction to Statistics for the Health Sciences	2017 – 2020
HSCI 3117 – Principles of Biostatistics for the Health Sciences	2017 – 2021
Instructor, Department of Clinical Research and Leadership	
HSCI 2117 – Introduction to Statistics for the Health Sciences (29 sections)	2016 – 2023
HSCI 3117 – Principles of Biostatistics for the Health Sciences (3 sections)	2017 – 2023
Teaching Assistant, Department of Statistics	
STAT 6210 – Data Analysis (Spring 2012)	
STAT 3187 – Introduction to Sampling (Fall 2011)	
STAT 2112 – Business Statistics II (Spring 2011)	

OTHER RESEARCH EXPERIENCE

University of Minnesota , Minneapolis, MN	
Research Assistant, Department of Curriculum and Instruction	
DataX (NSF #2101413)	2022
Research Assistant, Department of Educational Psychology	
The Data Science WAV (NSF #1923700)	2020

SERVICE TO THE FIELD

2024 Electronic Conference on Teaching Statistics, program committee	2023 – present
UIUC Statistics Teaching and Learning Research Lab, founder and director	2023 – present
Researchers of Statistics Education (RoSE), deputy director	2022 – present
American Educational Research Association, annual conference reviewer	2021 – 2022
Society for the Teaching of Psychology, Presidential Task Force on Statistical Literacy, Reasoning, and Thinking, task force member	2021
Statistics Education – Engagement and Development for Students, founder	2020 – present
CAUSE Undergraduate Statistics PROject Competition, judge	2020 – 2022
AP Statistics Exam, reader	2020
Washington Statistical Society, poster competition judge	2014
American Society for Testing and Materials, subcommittee E11.10 & E11.30	2011 – 2013

SERVICE TO THE COMMUNITY

The Link Tank (UMN), founder	2019 – 2022
Council of Graduate Students (COGS) Community Building Grant (\$300)	2022
Council of Graduate Students (COGS) Community Building Grant (\$120)	2020
QME Brown Bag, founder	2018 – 2021
Council of Graduate Students, Educational Psychology student representative	2018 – 2019
Pi Mu Epsilon Illinois Alpha Chapter, chapter president	2007 – 2008
Pi Mu Epsilon Illinois Alpha Chapter, chapter vice president	2006 – 2007

JOURNAL PEER REVIEWS

Cognition and Instruction (1 paper)	2023 – present
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Journal of Statistics and Data Science Education (6 papers)	2021 – present
Statistics Education Research Journal (2 papers)	2021 – present
Technology Innovations in Statistics Education (1 paper)	2021 – present