# Daniella Rebouças Ju

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Education	
University of Notre Dame, Notre Dame, IN Ph.D., Quantitative Psychology M.S., Applied and Computational Mathematics and Statistics	August 2021 May 2015
Universidade de São Paulo, São Carlos, SP, Brazil B.S./B.Ed. Mathematics	Dec 2013
Professional Experience	
<b>Psychometrician</b> Cambium Assessment, Inc., Washington, DC. Assessment evaluation, computerized adaptive test simulations, IRT modeling,	Mar 2023 – Present response time research
<b>Psychometrician</b> Houghton Mifflin Harcourt, Boston, MA. Growth measure assessment, item calibration, quality review, assessment design quality assurance, IRT modeling, Rshiny	Oct 2021 – Feb 2023 n,
Statistical Consultant Department of Psychology, University of Notre Dame, Notre Dame, IN. Supervisor: Dr. Ke-Hai Yuan. Provided consulting services to faculty and graduate students projects on statist modeling and computational techniques.	Jan 2020 – Jul 2020 tical
Intern, Research & Development Educational Testing Service (ETS), Princeton, NJ. Mentors: Dr. Qiwei He and Dr. Xiang Liu. Project: Exploring Group Differences with Process Data from the PIAAC.	Jun 2019 – Jul 2019
Volunteer Educator Projeto Âncora, Cotia, SP. Brazil. Worked with elementary and middle-school students as a math specialty educat for an experimental school in inner-city São Paulo.	Feb 2014 – Jun 2014 or

#### PUBLICATIONS

- Ober, T. M., Brodersen, A., Rebouças-Ju, D., Hong., M., Carter, M. F., Liu, C., & Cheng, Y. (2022). Math Attitudes, Engagement, and Performance of High School Students on High and Low-stakes Tests of Statistics Knowledge. *Journal for STEM Education Research*. 5. 1-37.
- Ober, T. M., Hong, M., Carter, M., Brodersen, A., Rebouças-Ju, D., Liu, C., & Cheng, Y. (2022). Are high school students accurate in predicting their AP exam scores?: Examining inaccuracy and overconfidence of students' predictions. Assessment in Education: Principles, Policy & Practice, 29:1, 27-50.
- Rebouças, D. A., & Cheng, Y. (2021). Explanatory response time models. In: *Quantitative Psychology:* 85th Annual Meeting of the Psychometric Society, Virtual, 2020 (Vol. 323). Springer.
- Ober, T. M., Hong., M., Rebouças-Ju, D., Carter, M. F., Liu, C., & Cheng, Y. (2021). Linking selfreport and process data to performance as measured by different assessment types. *Computers & Education*, 167, 104-188.
- Ober, M. T., Coggins, M. R., **Rebouças**, **D.**, **A.**, Suzuki, H., Cheng & Y. (2021) Effect of teacher support on students' math attitudes: measurement and moderation of students' background characteristics. *Contemporary Educational Psychology*, 66.
- Hong, M., **Rebouças**, **D. A.**, & Cheng, Y. (2020). Robust estimation of working speed using the lognormal model for response time data. *Journal of Educational Measurement*.

- Ober, T. M., **Rebouças**, **D. A.**, Brodersen, A. S., Carter, M., & Cheng, Y. (2020). Examining how engagement mediates the association between procrastination and math anxiety. In: *Proceedings of the 2020 Annual Meeting of the American Educational Research Association*.
- Kim, S. Y., Kark, S. M., Daley, R. T., Alger, S. E., Rebouças, D. A., Kensinger, E. K., & Payne, J. D. (2020). Interactive effects of stress reactivity and rapid eye movement sleep theta activity on emotional memory formation. *Hippocampus*, 30, 829–841.
- Rebouças, D. A., & Cheng, Y. (2019). Relationship between item characteristics and detection of differential item functioning under the MIMIC Model. *Psychological Test and Assessment Modeling*, 61(2), 227-257.
- Cheng, Y., Brodersen, A., & **Rebouças**, **D. A.** (2016). Item type, dimensionality and missing data. White-paper submitted to the *JRC*, *National Council of State Boards of Nursing* (NCSBN).

### MANUSCRIPTS IN PREPARATION

- **Rebouças**, **D. A.**, & Cheng, Y. (in preparation). Bayesian estimation of the log-normal model for response time data.
- **Rebouças, D.**, Whitney, B., Hong, M., Ober, T. M., & Cheng, Y. (in preparation) An application of Kane's framework of validation to the Scale of Student Engagement in AP statistics.
- **Rebouças**, **D.**, & Cheng, Y. (in preparation). Application of change-point bivariate analysis of item responses and response time data to detect test speededness.
- **Rebouças**, **D.**, & Cheng, Y. (in preparation). DIF effect size measures: review and implications for power of DIF detection.

#### PRESENTATIONS

- **Rebouças-Ju, D.**, Cheng, Y. (2022, April). *Explanatory response time models*. Symposium presentation. National Council on Measurement in Education Annual Meeting (NCME). San Diego, CA.
- **Rebouças, D. A.**, He, Q., & Liu, X. (2021, April). Exploring group differences in large-scale assessments using latent class analysis on process data. Symposium presentation. National Council on Measurement in Education Annual Meeting (NCME). Virtual.
- **Rebouças, D. A.**, & Cheng, Y. (2020, August). Modelo exploratório para tempos de resposta: aplicações para avaliações psicológicas online [*Exploratory models for response time modeling: an application to psychological assessment*]. Invited talk. Seminars Series (PPGE-UFPE). Department of Statistics. Universidade Federal de Pernambuco. Virtual.
- **Rebouças, D. A.**, & Cheng, Y. (2020, July). *Careless responses using response time data*. Oral presentation. International Meeting of the Psychometric Society (IMPS). Virtual.
- **Rebouças, D. A.**, & Cheng, Y. (2020, April). Change-point analysis with joint modeling of response times and item response data. Symposium presentation. National Council on Measurement in Education Annual Meeting (NCME). San Francisco, CA. [cancelled]
- **Rebouças, D. A.**, He, Q., & Liu, X. (2020, April). Exploring group differences in large-scale assessments using latent class analysis on process data. Symposium presentation. National Council on Measurement in Education Annual Meeting (NCME). San Francisco, CA. [cancelled]
- Ober, T. M., Rebouças, D. A., Brodersen, A. S., Carter, M. F., & Cheng., Y. (2020, April). Examining how engagement mediates the association between procrastination and math anxiety. Roundtable presentation. Annual Meeting of the American Educational Research Association (AERA), San Francisco, CA. [cancelled]
- Rebouças, D. A., & Cheng, Y. (2019, July). Bivariate change-point analysis of speeded respondents using response time and response accuracy. Oral presentation. International Meeting of the Psychometric Society (IMPS). New York, NY.
- Rebouças, D. A., & Cheng, Y. (2018, July). DIF effect size measures: review and implications for power of DIF detection. Oral presentation. International Meeting of the Psychometric Society (IMPS). New York, NY.

- Rebouças, D. A., & Cheng, Y. (2017, October). Relationship between item characteristics and DIF detection under the MIMIC model. Oral presentation. Ideas in Testing Research Seminar. Department of Psychology at the Illinois Institute of Technology (IIT) and Pearson VUE. Chicago, IL.
- Rebouças, D. A., & Cheng, Y. (2016, April). Handling missing data on DIF detection under the MIMIC model. Oral presentation. National Council on Measurement in Education Annual Meeting (NCME). Washington, DC.

## Mentorship Experience

- Coggins<sup>\*</sup>, M. R., Ober, T. M., **Rebouças**, **D. A.**, Suzuki, H., & Cheng, Y. (2020, May). *Teacher support* and math attitudes: Split sample confirmatory factor analyses and structural equation model. Poster presentation. Annual Meeting of the Association for Psychological Science. Chicago, IL. (cancelled)
- Johnston\*, A., Rebouças, D. A., Cheng, Y. (2018, Jul.). Are all Personality Inventories Equal? Assessing the Applicability of the BFI-2 to Adolescent Boys and Girls. Poster presentation. Computational Social Science Research Experience for Undergraduates (REU) Site at the Center for Research Computing. Funded by the National Science Foundation. Notre Dame, IN.
- Qu<sup>\*</sup>, H., **Rebouças**, **D. A.**, Cheng, Y. (2018, Apr). To Take or Not To Take: Factors of Participation in the AP Statistics Exam. Senior thesis. Glynn Family Honors Program. Notre Dame, IN.

\*undergraduate mentee

#### AWARDS

NCME Pipeline Scholarship - \$1,500 National Council on Measurement in Education. Support for conference travel.	2020
Graduate Professional Development Award - \$1,000 Notebaert Professional Development Fund, University of Notre Dame. Support for conference travel.	2019
Professional Development Funds - \$400 Department of Psychology, College of Arts & Letters, University of Notre Dame.	2019
<b>Professional Development Funds - \$1,500</b> Office of the Dean, College of Arts & Letters, University of Notre Dame.	2016
Fellow of the Science Without Borders Scholarship Program Agency for Support and Evaluation of Graduate Education of Brazil (CAPES). Masters program tuition and stipend. $\approx$ \$60,000	2014
Highest GPA of the Graduating Class Department of Teaching in Mathematics, University of São Paulo.	2013
TEACHING EXPERIENCE	
<b>Teaching Assistant / Lab Instructor: Experimental Psychology I</b> Undergraduate-level class lead by Dr. Bradley Gibson. University of Notre Dame.	2019
<b>Teaching Assistant / Lab Instructor: Experimental Psychology I</b> Undergraduate-level class lead by Dr. Ross Jacobucci. University of Notre Dame.	2018
Volunteer Lecturer: Item Response Theory with R Graduate-level class lead by Dr. Ying Cheng. University of Notre Dame.	2017
Instructor of Item Response Theory with R Undergraduate-level class series for the NSF Psychometric Summer Fellowship program.	2015

# Supervisor: Dr. Ying Cheng. University of Notre Dame.

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Undergraduate T	eaching	Assistant:	Stochastic Processes 20	)13
Supervisor: Dr.	Pablo M	. Rodriguez.	University of São Paulo.	

n Supervisor: Dr. Fernando Manfio. University of São Paulo.

## TECHNICAL SKILLS

Statistical Softwa	re: R, SPSS, SAS, Mplus, stan, JAGS, BILOG, Winsteps
Programmi	ng: Python, C++, HTML
General Too	ols: LATEX, GitHub, Git, R Shiny, Markdown, Org, Emacs, Qualtrics, Microsoft
	Office Excel, Word, PowerPoint, Outlook
SERVICE	
2023–2024 Memb	er of the Planning Committee for the Women's Initiative Network Conference,
part of	the group for Diversity, Equity, Inclusion and Belonging. Cambium Assessment, Inc.

- 2020–2021 **Graduate Peer Mentor** of the Diversity, Equity and Inclusion (DEI) Committee. Department of Psychology, University of Notre Dame.
- 2019–2021 **Co-Instructor** of the Quantitative Study Group (QSG) weekly seminars. Department of Psychology, University of Notre Dame.
- 2019–2020 **Treasurer** for the Expanding Your Horizons Conference committee. South Bend, IN. **Quantitative Area Representative** for the Graduate Advisory Committee (GAC). Department of Psychology, University of Notre Dame. **Graduate Student Liaison** for the AERA Division D International Committee.
- 2018–2019 Panelist for the Graduate Professional Development event "Attending and Presenting at Academic Conferences". Department of Psychology. University of Notre Dame.
  Mentor for the 2019 Expanding Your Horizons Conference event. South Bend, IN.
  Facilitator of the Psychology Graduate Students Writing Accountability Group. Department of Psychology, University of Notre Dame.
- 2017–2018 **Quantitative Area Representative** of the Diversity, Equity and Inclusion (DEI) Committee. Department of Psychology, University of Notre Dame. **Ambassador** of the Graduate Student Orientation. Social Media Team. The Graduate School. University of Notre Dame.

# Memberships & Activities

2016–current	Psychometric Society National Council on Measurement in Education (NCME) American Educational Research Association (AERA)
2018-2019	Volunteer at the South Bend Roller Girls, a nonprofit roller derby league and member of the Women's Flat Track Derby Association. South Bend, IN.
2016-2018	Soprano at <i>Chorale</i> , the official concert choir for the University of Notre Dame. Department of Music, University of Notre Dame.
2010-2012	Student member of the planning committee of the XV Symposium of Mathematics for Undergraduates. Department of Mathematics. University of São Paulo.
2009-2010	Secretary for the Young Adults Group for the First Presbyterian Church of São Carlos, SP, Brazil.

# Selected Coursework

ANOVA • Linear Regression • Experimental Design • Multivariate Statistics • Factor Analysis Longitudinal Data Analysis • Latent Growth Models • Mixture Models • Psychological Measurement Item Response Theory • Bayesian Statistics • Machine Learning