Daniel Katz

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EDUCATION

University of California, Santa Barbara

Ph.D (2022): Education - Quantitative Research Methods and Philosophy of Measurement
  Thesis: Fairness and Uncertainty in Educational Measurement and Psychometrics
  Committee: Andrew Maul (chair), Karen Nylund-Gibson, Diana Arya

M.A. (2017): Education - Quantitative Research Methods
  Thesis: Validating a Multidimensional Measure of Reading Strategy Use

B.A. (2011): Political Science, Minor in History

RESEARCH INTERESTS

  The Rasch Model and Explanatory Item Response Theory Models
  Fairness and Ethics in Human Measurement
  Philosophy of Measurement and Uncertainty
  Literacy

RELEVANT EXPERIENCE

2021 to Present:
Community Based Literacies - UCSB
  Supervisor: Diana Arya
  Role: Measurement Specialist and Analyst

2021 to Present:
Microsoft (Vendor/Contractor)
  Role: Measure Construction and Psychometrics for User Research

2019-2021:
University of Florida, Virtual Learning Lab – IES Grant R305C160004
  Supervisor: Anne Corinne Manley
  Role: Graduate Student Extern – IRT/Simulation focus

2018-2021:
UCSB Center for Innovative Teaching, Research, and Learning (CITRAL)
  Supervisor: Linda Adler-Kassner
  Role: Graduate Student Researcher in Assessment and Evaluation

Summer 2018:
New York City Department of Education: Assessment, Design, and Evaluation

Supervisor: Ronli Diakow
Role: Graduate Student Psychometrics Intern – Applying IRT and Explanatory IRT Models

2016-2019:
California Dropout Research Project (CDRP)
Get Focused Stay Focused Program Evaluation
  PI: Russell Rumberger
  Role: Graduate Student Researcher

2016-2018:
UCSB Office of Institutional Research
  PI: Linda Adler-Kassner, Co-Interim Dean of UCSB Undergraduate Education
  Role: Graduate Student Researcher

PUBLISHED WORK

Katz, D, Huggins-Manley, A.C., Leite, W.L. (accepted). Personalized Online Learning, Test Fairness, and Educational Measurement: Considering Differential Content Exposure Prior to a High Stakes End-of-Course Exam. *Applied Measurement in Education.*

Wilton, M, **Katz, D**., Clairmont, A., Gonzalez-Nino, E., Foltz, K., Christoffersen, R., (in press). Improving academic performance and retention of first-year biology students through a scalable peer-mentorship program. *CBE - Life Sciences Education.*

Arya, Diana, Clairmont, A. **Katz, D** & Maul, A. (2020) Measuring Reading Strategy Use, *Educational Assessment*, 25:1, 5-30, DOI: 10.1080/10627197.2019.1702464

Maul, A. and **Katz, D**. (2018). Internal Validity. In B. Frey (Editor), The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation. Thousand Oaks, CA: SAGE.

Katz, D. (2017, May). An Update: The Narrowing California High School Graduation Gap between Black, Latino, and White Students. (CDRP Statistical Brief No.24). Retrieved from http://cdrpsb.org/pubs_statbriefs.htm

Katz, D. (2017, March). The Narrowing California High School Graduation Gap between Black, Latino, and White Students. (CDRP Statistical Brief No. 23). Retrieved from http://cdrpsb.org/pubs_statbriefs.htm. The Narrowing California High School Graduation Gap between Black, Latino, and White Students

CONFERENCE PRESENTATIONS

Clairmont, A. & **Katz, D.** (April, 2021). Using Rasch Measurement Theory for Responsive Program Evaluation. Paper presented at the American Educational Research Association Annual Meeting (AERA). To be held Virtually

Katz, D, Huggins-Manley, A. C., & Leite, Walter(July, 2020). Technology-Enhanced Learning Platforms, Opportunity to Learn, and Test Fairness. Paper to be presented at the International Meeting of the Psychometric Society (IMPS). To be presented at IMPS 2021.

Katz, D and Clairmont A. (April, 2020). Should Psychometricians Make Claims About Test Fairness? Paper to be presented at the National Council on Measurement in Education (NCME) (Postponed due to COVID).

Katz, D. and Diakow, R. (April, 2019). Using Explanatory Item Response Theory Models to Re-Examine Fairness in Psychometrics. Paper to be presented at the National Council on Measurement in Education (NCME) April 4-8, 2019. Toronto.

Katz, D., Nylund-Gibson, K., & Furlong, M. (2019, April). Is One Item Enough? Examining Affect-Laden Survey Items Using Mixture Modelling with Distal Outcomes. Paper presented at American Educational Research Association Annual Meeting, April 5-9, 2019. Toronto.
Best Graduate Student Paper in the AERA Survey Special Interest Group Sig

Katz, D., Clairmont, A., Arya, D., & Maul, A., (2018, April). Measuring Reading Strategy Use in a Multilingual Context. Paper presented at American Educational Research Association Annual Meeting, April 13-17, 2018. New York.

Katz, D., Clairmont, A., Arya, D. & Maul, A. (2018, April). Measuring Reading Strategy Use in a Multidimensional, Multilingual Context. Paper presented at the International Objective Measurement Workshop (IOMW), April 10-12, 2018. New York.

SELECT IN PROGRESS WORK

Katz, D., Maul A., Clairmont, A (2021) Tools from philosophy of language for increasing transparency in psychological measurement"

Clairmont, A. & **Katz D.** (in preperation) Using Rasch Measurement Theory for program evaluation: A methods note. To be submitted to *American Journal of Evaluation*

Katz D. Reconsidering fairness in educational assessment: using tools from ethics, causal inference, and psychometrics

Katz D. Measuring subjective well-being and other constructs in positive psychology using mixture modelling approaches (with an emphasis on educational settings)

TEACHING EXPERIENCE

Instructor
One Day Workshops

UCSB Methods U - An Introduction to R: Data Cleaning, Wrangling, and Visualizing
Implementing Explanatory IRT via the R package, TAM

Teaching Assistant
Fall 2020: Education 217C, Constructing Measures
Spring 2018: Education 214C, Linear Models for Data Analysis (and categorical data analysis)
Winter 2018: Education 214B,Inferential Statistics
Fall 2017: Education 214A, Introductory Statistics

ORGANIZATION & COMMITTEE MEMBERSHIPS

Graduate Student Representative - NCME Committee on Informing Assessment Policy and Practice
American Educational Research Association
National Council on Measurement in Education
Society for the Improvement of Psychological Sciences

STATISTICAL SOFTWARE

R
  Commonly used stats packages: TAM, mirt, lme4, Lavaan, plm
  Stan, brms, rstan (Basic Knowledge)
  Other packages: tidyverse, Rmarkdown, xaringan
Mplus
Stata (Basic Knowledge)
Tableau (Basic Knowledge)
Git and Gitub (Basic Knowledge)
Dedoose (Beginner)