

# Daniel Katz

UCSB

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## EDUCATION

### University of California, Santa Barbara

**PhD** (2022): Education - Quantitative Research Methods and Philosophy of Measurement  
Thesis: Fairness and Uncertainty in Educational and Psychological Measurement  
Advisor: Andrew Maul

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

**BA** (2011): Political Science, Minor in History

## RESEARCH INTERESTS

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

## RELEVANT EXPERIENCE

2021-Present:

### Microsoft

Contracted through: Insight Global  
Role: Contract User Researcher - Measurement and evaluation

2019-Present:

### 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](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](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 preparation) Using Rasch Measurement Theory for program evaluation: A methods note. To be submitted to *American Journal of Evaluation*

**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

Other packages: tidyverse, Rmarkdown, xaringan

Stan/rstan (Basic Knowledge)

Mplus

Stata (Basic Knowledge)

Tableau (Basic Knowledge)

Git and Github (Basic Knowledge)

Dedoose (Beginner)