Cengiz Zopluoglu, Ph.D.
Associate Professor
Research, Measurement, and Evaluation Program
Department of Educational and Psychological Studies

1. Date: January 3, 2020

I. Personal

2. Name: Cengiz Zopluoglu

3. Home Phone:

4. Office Phone: 305-284-5102

5. Home Address:

6. Current Academic Rank: Associate Professor

7. Primary Department: Educational and Psychological Studies

8. Secondary or Joint Appointments: N/A

9. Citizenship: Turkey

10. Visa Type (if non-citizen):

II. Higher Education

11. Institutional (institution; degree; date conferred):

- University of Minnesota, Ph.D. in Educational Measurement, July 2013
- University of Minnesota, M.A. in Educational Measurement, July 2009
- Abant Izzet Baysal University, B.A. in Mathematics Education, June 2005

12. Non-Institutional (description; dates): N/A

13. Certification, licensure (description; board or agency; dates): N/A

III. Experience

14. Academic (institutions; rank/status; dates):

- University of Miami, Associate Professor, 06/2019 - Present
- University of Miami, Assistant Professor, 08/2013 - 06/2019
- University of Minnesota, Graduate Assistant, Teaching and Research, 2009-2013

15. Hospital Appointments (institutions, dates): N/A

16. Non-Academic (employers; title; responsibilities; dates):

- ACT, Inc., Psychometric Research Intern, Research, June-August 2012
- Minneapolis Public Schools, Psychometric Research Intern, Research, September 2008-January 2009
- Gazipasa Elementary School (Turkey), Mathematics Teacher, 2005-2006

17. Military (branch; rank; responsibilities; dates): N/A

IV. Publications

18. Books and monographs published:

19. Juried of Refereed Journal Articles:

1. **Zopluoglu, C**. (in press). A Finite mixture item response theory model for continuous measurement outcomes. *Educational and Psychological Measurement*. https://doi.org/10.1177/0013164419856663

2. **Zopluoglu, C**. (in press). Computation of response similarity index M4 in R under the dichotomous and nominal item response models. *International Journal of Assessment Tools in Education, 6* (*5-special issue)*, 1-19. https://doi.org/10.21449/ijate.527299

3. **Zopluoglu, C**. (2019). Detecting examinees with item preknowledge in large-scale testing using Extreme Gradient Boosting (XGBoost). *Educational and Psychological Measurement*, 79(5), 931–961. https://doi.org/10.1177/0013164419839439

4. Kohli, N., Peralta, Y.**, Zopluoglu, C.,** & Davison, M.L. (2018). A note on estimating single-class piecewise mixed-effects models with unknown change points, *International Journal of Behavioral Development, 42(5)*, 518-524. https://doi.org/10.1177/0165025418759237

5. Sideridis, G.D., & **Zopluoglu, C.** (2018). Validation of response similarity analysis for the detection of academic cheating: An experimental study. *Journal of Applied Measurement, 19(1)*, 59-75.

6. Sari, H.I., Huggins-Manley, A.C., & **Zopluoglu, C.** (2017). Comparing item selection methods in multidimensional computerized adaptive testing under different types of multidimensional structures. *International Journal of Recent Scientific Research*, *8 (8)*, 19269-19276. http://recentscientific.com/sites/default/files/8247-A-2017.pdf

7. de l'Etoile**,** S., Behura, S., & **Zopluoglu, C.** (2017). Acoustic parameters of infant-directed singing in mothers of infants with Down syndrome. *Infant Behavior and Development*, *49*, 151-160. https://doi.org/10.1016/j.infbeh.2017.09.001

8. **Zopluoglu, C.,** & Davenport, E.C. (2017). A note on using eigenvalues in dimensionality assessment. *Practical Assessment, Research & Evaluation*, *22* (7), 1-10. http://www.pareonline.net/getvn.asp?v=22&n=7

9. Brogaard, B,Marlow, K., Overgaard, M., Schwartz, B., **Zopluoglu, C.,** Tomson, S., Neufeld, J., Sinke, C., Owen, C., Eagleman, D. (2017). Deaf hearing: Implicit discrimination of auditory content in a patient with mixed hearing loss. *Philosophical Psychology, 30*(1-2), 21-43. https://doi.org/10.1080/09515089.2016.1268680

10. Myers, N. D., Ahn, S., Lu, M., Celimli, S., & **Zopluoglu, C**. (2017). Reordering and reflecting factors for simulation studies with exploratory factor analysis. *Structural Equation Modeling: A Multidisciplinary Journal*, *24*(1), 112-128. https://doi.org/10.1080/10705511.2016.1230721

11. **Zopluoglu, C.** (2016). Classification performance of answer-copying indices under different types of IRT models. *Applied Psychological Measurement*, *40*(8), 592-

607. https://doi.org/10.1177%2F0146621616664724

12. Kohli, N., Harring J.R., & **Zopluoglu, C.** (2016). A finite mixture of nonlinear random coefficient models for continuous repeated measures data. *Psychometrika*, *81*(3), 851-880. https://doi.org/10.1007/s11336-015-9462-0

13. **Zopluoglu, C.** (2015). Evaluating the sampling performance of exploratory and cross-validated DETECT procedure with imperfect models. *Multivariate Behavioral Research*, *50*(*6*)*,* 632-644. https://doi.org/10.1080/00273171.2015.1070708

14. Kohli, N., Hughes, J., Wang, C., **Zopluoglu, C.,** & Davison, M. (2015). Fitting a linear-linear piecewise growth mixture model with unknown knots: A comparison of two common approaches to inference. *Psychological Methods*, *20*(*2*)*,* 259-275. http://dx.doi.org/10.1037/met0000034

15. Kohli, N., Sullivan, A., Sadeh, S., & **Zopluoglu, C.** (2015). Longitudinal mathematics development of students with learning disabilities and students without disabilities: A comparison of linear, quadratic, and piecewise linear mixed effects models. *Journal of School Psychology*, *53*(2)*,*105-120. https://doi.org/10.1016/j.jsp.2014.12.002

16. Myers, N.D., Jin, Y., Ahn, S., Celimli, S., & **Zopluoglu, C.** (2015). Rotation to a partially specified target matrix in exploratory factor analysis in practice. *Behavior Research Methods, 47*(2), 494-505. https://doi.org/10.3758/s13428-014-0486-7

17. **Zopluoglu, C.,** Harring J.R., & Kohli, N. (2014). FitPMM: An R routine to fit finite mixture of piecewise mixed-effect models with unknown random knots. *Applied Psychological Measurement, 38*(7), 583-584. [Computer software]. https://doi.org/10.1177/0146621614540482

18. Van Norman E., Christ, T. J., **Zopluoglu, C.** (2013). The effects of baseline estimation on the reliability, validity, and precision of CBM-R growth estimates, *School Psychology Quarterly*, *28*(3), 239-255. http://dx.doi.org/10.1037/spq0000023

19. Christ, T. J., Monaghen, B., **Zopluoglu, C.** & Van Norman, E. R. (2013). Curriculum-Based measurement of oral reading: Evaluation of growth estimates derived with pre-post assessment methods. *Assessment for Effective Intervention*, *38*(3), 139-153. https://doi.org/10.1016/j.jsp.2012.11.001

20. **Zopluoglu, C.** (2013). A comparison of two estimation algorithms for Samejima's continuous IRT model. *Behavior Research Methods*, *45*(1), 54-64. https://doi.org/10.3758/s13428-012-0229-6

21. Christ, T.J., **Zopluoglu, C.,** Monaghen, B., & Van Norman, E.R. (2013). Curriculum- Based measurement of oral reading: Multi-study evaluation of schedule, duration and dataset quality on progress monitoring outcomes. *Journal of School Psychology*, *51*(1), 19-57. https://doi.org/10.1016/j.jsp.2012.11.001

22. **Zopluoglu, C.** (2013). CopyDetect: An R package to compute statistical indices for detecting

answer copying on multiple-choice tests. *Applied Psychological Measurement, 37*(1), 75-77. [Computer software]. https://doi.org/10.1177/0146621612463119

23. **Zopluoglu, C.** & Davenport, E.C. (2012). The empirical power and type-I error rates of the GBT and Omega indices in detecting answer copying on multiple-choice tests. *Educational and Psychological Measurement*, *72*(6), 975-1000. https://doi.org/10.1177/0013164412442941

24. Christ, T. J., **Zopluoglu, C.**, Long, D. J., & Monaghen, B.D. (2012). Curriculum-Based measurement of oral reading (CBM-R): Quality of progress monitoring outcomes. *Exceptional Children, 78*(3), 356-373. https://doi.org/10.1177/001440291207800306

25. **Zopluoglu, C.** (2012). EstCRM: An R package for Samejima's continuous IRT model. *Applied Psychological Measurement, 36*(2), 149-150. [Computer software]. https://doi.org/10.1177/0146621612436599

26. **Zopluoglu, C.** (2012). A cross-national comparison of intra-class correlation coefficient in educational achievement outcomes. *Journal of Measurement and Evaluation in Education and Psychology, 3*(1), 242-278. http://dergipark.gov.tr/epod/issue/5803/77225

20. Other works, publications and abstracts:

1. **Zopluoglu, C.** (2017). Similarity, answer copying, and aberrance: Understanding the status quo. In G.J. Cizek & J.A. Wollack, *Handbook of Detecting Cheating on Tests*. Taylor & Francis.

2. **Zopluoglu, C.** (2015). *2015 GER Assessment: Measuring quantitative reasoning and scientific reasoning proficiency for the 2015 senior sample at the University of Miami*. Coral Gables: University of Miami.

3. **Zopluoglu, C.** (2014). *2014 GER Assessment: Measuring quantitative reasoning and scientific reasoning proficiency for the 2014 senior sample at the University of Miami*. Coral Gables: University of Miami.

4. **Zopluoglu, C.** (2014). *2013 GER Assessment: Measuring information literacy, quantitative reasoning, and scientific reasoning proficiency for the 2013 senior sample at the University of Miami*. Coral Gables: University of Miami.

21. Other works accepted for publication:

V. Professional

22. Funded Research Performed (include all grants received in the last five years, identifying the principal investigator, and the amounts and dates of the awards):

Teacher and Peer Speech in Inclusion Classrooms: Malleable Factors Affecting Language Outcomes for Children with Disabilities (Dr. Daniel S. Messinger, PI)
National Center for Special Education Research, Institute of Education Sciences
Budget: $1,399,735
Funding period: 07/01/2018 – 06/30/2022
Effort: 9% AY
Role: Statistical Consultant/Data Analyst

Intergroup Dialogue Program (Dr. Laura Kohn-Wood, PI)
Jessie Ball Du Pont Fund
Budget: $257,288
Funding period: 01/01/2018 – 12/31/2018
Effort: 2% AY; 1 SM
Role: Statistical Consultant/Data Analyst

Exceptional Student Education (ESE) Parent Survey (Dr. Batya Elbaum, PI)
Florida Department of Education
Budget: $422,195
Funding period: 09/01/2016 – 08/31/2017
Effort: 3.74% AY, 0.5 SM
Role: Statistical Consultant/Data Analyst

Exceptional Student Education (ESE) Measuring Outcomes (Dr. Batya Elbaum, PI)
Florida Department of Education
Budget: $142,175
Funding period: 07/01/2016 – 06/30/2017
Effort: 0.5 SM
Role: Statistical Consultant/Data Analyst

Culturally Informed Family Based Treatment of Adolescents (Dr. Dan Santisteban, PI)
National Institute on Drug Abuse
Budget: $613,352
Funding period: Financial Year 2014 and 2015
Effort: 33.5 % AY
Role: Statistical Consultant/Data Analyst

Modeling the Dynamics of Early Communication (Dr. Daniel Messinger, PI)
National Institute of General Med. Sciences
Budget: $2,078,308
Funding period: Financial Year 2014
Effort: 1.11 % AY
Role: Statistical Consultant/Data Analyst

23. Editorial responsibilities [with inclusive dates]:

- Statistical Consulting Editorial Board Member
  - *Journal of Personality Assessment*, 08/2016 – 08/2018
- Ad Hoc Reviewer (2013-present), total = 43
  - *Applied Psychological Measurement (k=1)*
  - *Educational Assessment (k=2)*
  - *Educational Researchers (k=2)*
  - *Eurasia Journal of Mathematics, Science, and Technology Education (k=1)*
  - *Educational Measurement: Issues and Practices (k=1)*
  - *Educational and Psychological Measurement (k=4)*
  - *Measurement in Physical Education and Exercise Science (k=1)*
  - *International Journal of Assessment Tools in Education (k=1)*
  - *International Journal of Intercultural Relations (k=1)*
  - *International Journal of Testing (k=1)*
  - *Journal of Community Psychology (k=1)*
  - *Journal of Educational and Behavioral Statistics (k=3)*
  - *Journal of Educational Measurement (k=3)*
  - *Journal of Modern Applied Statistical Methods (k=1)*
  - *Journal of Personality Assessment (k=3)*
  - *Multivariate Behavioral Research (k=1)*
  - *Psychological Methods (k=1)*
  - *Reading and Writing: An Interdisciplinary Journal* (k=1)
  - *Annual Meeting of National Council on Measurement in Education – 2017 (k=6)*
  - *Annual Meeting of National Council on Measurement in Education – 2019 (k=8)*

24. Professional and Honorary Organizations (member; officer; date):

- American Educational Research Association, Member, 2010-Present
- National Council on Measurement in Education, Member, 2013-Present

25. Honors and Awards [with dates]

- Graduate Student Research Award Recipient, Department of Educational Psychology, University of Minnesota, 2013
- Fellowship for Graduate Education in the U.S., National Ministry of Education of Turkey, 2007-2013
- Graduate Student Travel Award Recipient for 2013 American Educational Research Association Annual Conference, San Francisco, CA
- Graduate Student Travel Award Recipient for 2011 American Educational Research Association Annual Conference, New Orleans, LA

27. Post-Doctoral Fellowships: N/A

27. Other Professional Activities (e.g. papers presented; performances; conference proceedings; seminar or conference panel member; catalogue work; etc):

> Man, K., Harring, J.R., & **Zopluoglu, C**. (2019, October). *Application of a new method for multiple-group analysis of jointly modeling the item responses, response times, and visual fixation counts.* Paper presented at the Conference on Test Security, Miami, FL.

> **Zopluoglu, C.,** Belov, D., & Wollack, J.A. (2019, October). *Validation of graph theory approach to detect test collusion network using an experimental real dataset.* Paper presented at the Conference on Test Security, Miami, FL.

> Kasli , M. **& Zopluoglu, C.** (2019, October). *A deterministic gated lognormal response time model to identify examinees with item preknowledge.* Paper presented at the Conference on Test Security, Miami, FL.

> **Zopluoglu, C.** (2018, October). *Response similarity analysis using R.* Workshop at the Conference on Test Security, Park City, UT.

> **Zopluoglu, C.** (2018, October). *Detecting examinees with item preknowledge using Extreme Gradient Boosting (XGBoost).* Paper presented at the Conference on Test Security, Park City, UT.

> Kasli , M. **& Zopluoglu, C.** (2018, October). *Do people with item preknowledge really respond faster to items they had prior access? An empirical investigation.* Paper presented at the Conference on Test Security, Park City, UT.

> **Zopluoglu, C.** (2018, April). *Dimensionality as it relates to primary latent factors, sub-scores, and item parcels.* Paper presented at the annual meeting of National Council on Measurement in Education, New York, NY.

> **Zopluoglu, C.** (2017, April). *A finite mixture IRT model for continuous measurement outcomes.* Paper presented at the annual meeting of National Council on Measurement in Education, San Antonio, TX.

> **Zopluoglu, C.** (2016, November). *A finite mixture IRT model for continuous measurement outcomes.* Paper presented at the annual meeting of Florida Educational Research Association, Cocoa Beach, FL.

> Sari, H.I., **Zopluoglu, C.**, & Huggins-Manley, A.C. (2015, April). *Comparing item selection methods in multidimensional computerized adaptive testing under different types of multidimensional structures*. Paper presented at the annual meeting of American Educational Research Association, Chicago, IL.

> **Zopluoglu, C.** & Davenport, E.C. (2015, April). *A note on using eigenvalues in dimensionality assessment*. Paper presented at the annual meeting of National Council on Measurement in Education, Chicago, IL.

> **Zopluoglu, C.** (2014, November). *Evaluating the sampling performance of exploratory and cross-validated DETECT procedure with imperfect models*. Paper presented at the annual meeting of Florida Educational Research Association, Cocoa Beach, FL.

Zopluoglu, C. (2014, November). *Performance of response similarity indices under different types of IRT models*. Paper presented at the annual meeting of Florida Educational Research Association, Cocoa Beach, FL.

Elbaum, B., Noyes-Grosser, D.M., Siegenthaler, K., Romanczyk, R.G., Cavalari, R.N., Carter, R.L., Barczykowski, A.L., **Zopluoglu, C.** (2014, May). *Assessing family outcomes of early intervention: Utility of items specific to families of a child with autism spectrum disorder*. Paper presented at the International Meeting for Autism Research, Atlanta, GA.

Kohli, N.**,** Harring, J. R., & **Zopluoglu, C**. (2014, July). *A finite mixture of nonlinear random coefficient models for continuous repeated measures data*. Paper presented at the annual meeting of the International Meeting of the Psychometric Society (IMPS), Madison, WI.

Zopluoglu, C., Chen, T.T., Huang, C.Y., & Mroch, A.A. (2013, October). *The performance of statistical indices in detecting answer copying on multiple-choice examinations using dichotomous item scores*. Paper presented at the 2nd Annual Conference on the Statistical Detection of Potential Test Fraud, Madison, WI.

Bulut, O. & **Zopluoglu, C.** (2013, April). *Item parameter recovery of the Graded Response Model using the R package ltm: A Monte Carlo Simulation study*. Paper presented at the annual meeting of American Educational Research Association, San Francisco, CA.

Zopluoglu, C., Chen, T.T., Huang, C.Y., & Mroch, A.A. (2013, April). *Using previous test performance to improve the efficiency of statistical indices in detecting answer copying on multiple-choice examinations.* Paper presented at the annual meeting of American Educational Research Association, San Francisco, CA.

Zopluoglu, C., & Davenport, E.C. (2011, April). *The effects of answer copying on the ability level estimates of cheater examinees in answer copying pairs.* Paper presented at the annual meeting of American Educational Research Association, New Orleans, LA.

VI. Teaching

28. Teaching Awards Received:

29. Teaching Specialization (courses taught):

Instructor (Research, Measurement, and Evaluation Program, Department of Educational and Psychological Studies, University of Miami, 2013-Present)

- Quantitative Methods I (EPS 700)
- Quantitative Methods II (EPS 702)
- Computer Applications in Educational and Behavioral Science (EPS 704)
- Measurement and Psychometric Theory (EPS 705)
- Categorical Data Analysis (EPS 706)
- Item Response Theory (EPS 707)

Teaching Assistant (Quantitative Methods in Education Program, Department of Educational Psychology, University of Minnesota, 2009-2013)

- Statistical Analysis of Longitudinal Data
- Hierarchical Linear Modeling in Educational Research
- Statistical Methods I: Probability & Inference
- Introductory Statistical Methods (Online Class)
- Basic and Applied Statistics (Online Class)

30. Thesis and Dissertation Advising/Post-doctoral student supervision (chairman or committee member; topic; student name; date)

- Committee member – Doctoral Dissertation. Responding to Heterosexism and Racism: The Effects on Trauma and Well-Being for LGB People of Color. Huynh, K.D. *Defended in 2020.*

- Committee member – Doctoral Dissertation. Externalizing Problems and Hispanic/Latinx Adolescents: A Bioecological Perspective. Thomas, E.S. *Defended in 2019.*

- Committee member – Doctoral Dissertation. Relative Efficacy, Enjoyment, and Adherence of Four Common Progression Models in Strength Training for Older Adults. Buskard, A.N.L. *Defended in 2019.*

- Committee member – Doctoral Dissertation. The Effect of Cognitively Guided Instruction (CGI) on the Use of Representational Modeling by First and Second Grade English Learners (ELs) and Their English Proficient (EPs) Peers during Individualized Assessments of Arithmetic Word Problem Solving. Medina, E.A. *Defended in 2019.*

- Committee member – Doctoral Dissertation. Psychometric Problems with the Self-Report Altruism Scale: Can Studies of Trait Altruism be Trusted. McAuliffe, W.H.B. *Defended in 2019.*

- Committee member – Doctoral Dissertation. Parent-Teacher Agreement on Ratings of Kindergarden Children's Problem Behavior: At the Intersection of Disability, Gender, and Race. Morris, C.T. *Defended in 2018.*

- Committee member – Doctoral Dissertation. A Comparison of Geomin versus Target Rotation Criteria in Exploratory Factor Analysis with Correlated Factors and Large and Complex Pattern Matrices. Celimli, S. *Defended in 2017.*

- Committee member – Doctoral Dissertation. Treatment and Moderator Effects in a Randomized Controlled Trial of Culturally Informed and Flexible Family Treatment for Adolescents (CIFFTA): An Investigation of the Relationships between Stress, Acculturation, and Parenting Practices. Puccinelli, M. *Defended in 2017.*

- Committee member – Doctoral Dissertation. The Development and Initial Validation of a Multidimensional Scale of Perceived Fairness. Duff, J. *Defended in 2016.*

- Committee member – Doctoral Dissertation. Domestic Violence Practitioners' Use of Research Evidence Attitudes and Organizational Social Context. Krithika, M. *Defended in 2015.*

31. Master's students graduated under my supervision (name, graduation date)
    - Monica Morell, 2015
    - Violeta Rodriguez, 2015
    - Heath Gregg, 2015
    - Katherine Zambrana, 2016
    - Jazzerai Yarborough, 2017
    - Richard Munoz, 2017
    - Suat Babayigit, 2018
    - Melissa Dietrick, 2018
    - Adam Clarke, 2018
    - Maria Martinez, 2018
    - Joseph Wright, 2019
    - Dorothy Sanchez, 2019
    - Claudia Perez, 2019

VII. Service

32. University Committee and Administrative Responsibilities [with inclusive dates]

    - 2018-Present   Director, Doctoral Program, Research, Measurement, and Evaluation (RME), Department of Educational and Psychological Studies, University of Miami

    - 2014-Present   Director, Doctoral Program, Research, Measurement, and Evaluation (RME), Department of Educational and Psychological Studies, University of Miami

    - 2017-Present   Consultant and Data Analyst
      Office of Institutional Culture, University of Miami

    - 2013-2018   Statistical Consultant
      STATS-U, Community & Educational Well-Being Research Center, School of Education and Human Development

    - 2014-2017   School Council Representative for the Department of Educational and Psychological Studies (School of Education)

- 2016   Search Committee Member for Open-Rank Faculty Position for RME

- 2017   Search Committee Member for Open-Rank Faculty Position for RME

33. Community Activities [with inclusive dates]: N/A