

Fatih Ozkan

Doctoral Candidate in Quantitative Methods
Department of Educational Psychology
Baylor University
fatih_ozkan1@baylor.edu

Education

2025 Expected Doctor of Philosophy

Baylor University

Educational Psychology
Specialization: Quantitative Method
Dissertation: *(In progress)*

2021 Masters of Arts

Baylor University

Educational Psychology
Specialization: Quantitative Method
Thesis: Analyzing the Effect of STEM Education on the Academic Success and Social Emotional Development of Gifted Students

2017 Master of Arts

Erciyes University, Kayseri, Turkey

Science and Mathematics Education.
Thesis: Determination of Misconceptions by Developing the Two-Stage Multiple-Choice Test for 7th Grade Digestive System

2009 Bachelor of Education

Erciyes University, Kayseri, Turkey

Math and Science Education

Professional Certifications

2022 Institution (Texas Department of Education)

Science Education K-12 Teacher Certification

2022 Institution (Texas Department of Education)

Math Education K-12 Teacher Certification

Research Interests

- Large-scale assessment development and validation
- Advanced applications of Item Response Theory (IRT) and Computerized Adaptive Testing (CAT)
- Psychometric modeling for reliability, validity, and fairness across diverse populations
- Statistical methods for test score equating and scaling
- Innovative approaches to data analytics in educational measurement (e.g., Bayesian methods)

Professional Experience

2021 - Present

Graduate Research Assistant

Department of Educational Psychology, Baylor University.

- Design and conduct rigorous quantitative research studies
- Apply advanced statistical techniques
- Collaborate with faculty and peers to analyze datasets
- Interpret findings
- Contribute to manuscripts

2019 - 2021

Graduate Student

Department of Educational Psychology, Baylor University.

2016 - 2019

S.T.E.M. Manager

Kayseri STEM Centre, Ministry of Education, Kayseri, Turkey

- Oversaw STEM programs
- Conducted teacher training
- Led curriculum development
- Managed community partnerships

2009 - 2016

Science and Math Teacher

Ministry of National Education, Kayseri, Turkey

- Classroom instruction
- Lesson/assessment design
- Lab supervision
- Extracurricular mentorship

Publications

Peer Reviewed Journal Articles Submitted and Under Review/Revision

Research in Progress

- Ozkan F., Ogurlu U., Ozbay A. (2025). *What Changed Since 1994: Attitudes Towards Gifted Education* *What Changed Since 1994: Attitudes Towards Gifted Education*.(in progress)
- Morgan, G., Hiroki, M., & Ozkan, F. (2024). *Comparing Relative Efficiency of Non-parametric to Parametric Methods using Monte Carlo Simulation in Two-Group Designs*.(in progress).
- Ozkan, F. (2024). Examining Response Styles and Their Impact on Psychological Testing Outcomes: A Mixture Unfolding Multidimensional IRT Modeling Approach.(in progress).
- Toraman Turk, S., Meneses, J., Turk, M., F'abregues, S., Dudu, S., Ozkan, F., & Ustun, B. (2023). *The Use of Incentives in Qualitative Research across Disciplines: A Methodological Review Study*(in progress).
- Ozkan, F., & Oner Armagan, F. (2024). *Determination of Misconceptions by Developing the Two-Stage Multiple-Choice Test for 7th Grade Digestive System: A Rasch and Factor Models Analysis of the Digestive System Concept Scale (DSCS)*.(in progress).
- Ozkan, F. (2024). *Understanding the Impact of Opioid Use on Connecticut's Population- Insights from Drug-Related Deaths and Demographics: A Ridge Regression Analysis*.(in progress).
- Jensen¹, J. W., Kettler², T. & Ozkan², F. **Application of Gamification Techniques in Well Control Training and Competency**. Paper presented at the IADC/SPE International Drilling Conference and Exhibition, Galveston, Texas, USA, March 2024. doi: <https://doi.org/10.2118/217699-MS>(in progress).

- Ozkan, F. (2022). *Measuring Little-c Creativity: A Rasch Model Analysis of the Creative Achievement Questionnaire (CAQ) scale*.(in progress).
- Ozkan, F., & Kettler, T. (i2022). *A Meta-Analysis: Analyzing the Effect of STEM Education on the Academic Success and Social Emotional Development of Gifted Students*.(in progress).
- Ozkan, F., Kettler, T., & Anna, P. (2022). *Analyzing the Effect of Well-being and Mood on Everyday Creative Activity*.(in progress).
- Ozkan, F. (2022). *Multilevel Analysis: The Relationship Between Scientific Achievement and Creativity*.(in progress).
- Ozkan, F. (2022). *A Relationship Between Everyday Creativity-Little-C and Mood: A Multilevel Analysis*.(in progress).

Peer-Reviewed Publications

1. Ozkan, F., Oner Armagan, F., Bektas, O., & Saylan, A. (2015). Opinions of teachers on “This Is My Work” Project Competition. *Journal of History School*, 8, 211-24. <http://dx.doi.org/10.14225/Joh753>
2. Ozkan, F., Agoglu, F., Atmaca, Akgul, S., Tan, S., Camci, S., & Gucyeter, S. (2022). *Global Principles for Professional Learning in Gifted Education Turkish Translation*.
3. Ozkan, F., & Kettler, T. (2022). Effects of STEM education on the academic success and social-emotional development of gifted students. *Journal of Gifted Education and Creativity*, 9(2), 143-16.

Peer-Reviewed Conference Presentations

- Ozkan, F. (2025). *Predicting Reading Achievement in PIRLS 2021: A Comparative Analysis of Machine Learning Models*. NCME. Denver, CO.
- Ozkan F, Ogurlu U., Ozbay A. (2025). *What Changed Since 1994: Attitudes Towards Gifted Education What Changed Since 1994: Attitudes Towards Gifted Education*. AERA. Denver, CO.
- Jensen, J. W., Kettler, T., and Ozkan, F. (2024). “Application of Gamification Techniques in Well Control Training and Competency.” Paper presented at the IADC/SPE International Drilling Conference and Exhibition, Galveston, Texas, USA. <https://doi.org/10.2118/217699-MS>

- Ozkan, F. (2024). *Examining Response Styles and Their Impact on Psychological Testing Outcomes: A Mixture Unfolding Multidimensional IRT Modeling Approach*. AERA. Philadelphia, PA.
- Ozkan, F., & Song, J. (2024). *Meta-Analysis of Cross-Validation Indices in LCA*. SERA. Arlington, TX.
- Morgan, G., Hiroki, M., & Ozkan, F. (2024). *Comparing Relative Efficiency of Non-parametric to Parametric Methods using Monte Carlo Simulation in Two-Group Designs*. SERA. Arlington, TX.
- Ozkan, F. (2024). *Understanding the Impact of Opioid Use on Connecticut's Population: Insights from Drug-Related Deaths and Demographics*. AERA. Philadelphia, PA.
- Song, J., Tomek, S., & Ozkan, F. (2024). *The Relationship Between Body Image and Academic Performance: A Longitudinal Study*. SERA. Arlington, TX.
- Toraman Turk, S., Meneses, J., Turk, M., F'abregues, S., Dudu, S., Ozkan, F., & Ustun, B. (2023). *The Use of Incentives in Qualitative Research across Disciplines: A Methodological Review Study*. AERA. Chicago, IL.
- Ozkan, F. (2023). *Multilevel Analysis: The Relationship Between Scientific Achievement and Creativity*. Annual Meeting of the Southwest Educational Research Association (SERA). San Antonio, TX.
- Ozkan, F. (2023). *A Relationship Between Everyday Creativity-Little-C and Mood: A Multilevel Analysis*. Annual Meeting of the Southwest Educational Research Association (SERA). San Antonio, TX.
- Ozkan, F. (2023). *Measuring Little-c Creativity: A Rasch Model Analysis of the Creative Achievement Questionnaire (CAQ) scale*. Annual Meeting of the Southwest Educational Research Association (SERA). San Antonio, TX.
- Ozkan, F. (2022). *Rasch model analysis of the Creative Achievement Questionnaire (CAQ) scale*. NAGC 68th Annual Convention. Indianapolis, Indiana.
- Ozkan, F. (2021). *The Necessity of Differentiation in Science Education for Gifted and Talented Students*. NAGC 68th Annual Convention Reimagined! Colorado, Denver.
- Ozkan, F. (2021). *The Effect of STEM Education on Gifted Learners*. Baylor Emerging Research Conference, online.
- Ozkan, F. (2020). *Exploring a Teacher's Impact on Creative Self-efficacy*. Annual Meeting of the Southwest Educational Research Association (SERA).

- Ozkan, F. (2020). *The Effect of STEM Education on Gifted Learners*. NAGC 67th Annual Convention Reimagined!
- Ozkan, F. (2016). *Developing A Two-Tier to Assess 7th grade Elementary Students' Understanding Digestive System*. 1st International Conference on Studies in Education (ICOSEDU' 2016), Barcelona, Spain.
- Ozkan, F. (2015). *Opinions of Teachers On "This Is My Work" Project Competition*. International Eurasian Educational Research Congress, Hacettepe University, Ankara, Turkey.

Honors and Awards

- Outstanding Graduate Student Research Poster Award (Finalist), National Council on Measurement in Education), 2025.

Service

Regional/National Service

- American Education Research Association, Division D Communication Committee, 2022–Present

University Service

- Kappa Delta Pi – Baylor University Chapter, Activities Chair, 2022–Present
- Baylor University Graduate Student Association, Social Life Committee Chair, 2021–2023

Membership in Professional Associations

- American Educational Research Association (AERA)
- National Council on Measurement in Education (NCME)
- Psychometric Society

- Southwest Educational Research Association (SERA)

Professional Development

- Meta-Analysis Training: Modern Meta-Analysis Research Institute (MMARI) in Washington D.C., 2023.
- Meta-Analysis Training: Meta-Analysis Training Institute (MATI) in Chicago, 2025.

Relevant Course Work

- EDP 5340: Measurement and Evaluation
- EDP 5354: Statistical Methods
- EDP 6337: Psychometric Theory
- EDP 6360: Experimental Design I
- EDP 6362: Correlation & Regression
- EDP 6366: Item Response Theory
- EDP 6365: Latent Variable Models in Education
- EDP 5V95: Multilevel Modelling
- EDP 5V95: Nonparametric Statistics
- EDP 5V95: Nested Data in Education
- ECO 5352: Data Science II
- STA 4385: Mathematical Statistics I
- STA 4386: Mathematical Statistics II
- STA 5304: SAS Programming
- STA 5364: Survival and Reliability Analysis
- STA 5373: Computational Stat Methods

- STA 5384: Multivariate Statistics Method
- STA 6384: Analysis Categorical Responses
- STA 6351 Large Sample Theory
- STA 6352: Bayesian Theory
- STA 6360: Bayesian Methods Data Analysis

Programming Languages / Statistical Software

- LaTeX (Expert)
- R (Expert)
- SAS (Proficient)
- STATA (Working)
- MATLAB (Proficient)
- HLM (Expert)
- SPSS (Proficient)