

Sevilay Kilmen

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Education

Ankara University	Ankara, Turkey
PhD in Measurement and Evaluation	September 2007 – July 2010
Ankara University	Ankara, Turkey
MS in Measurement and Evaluation	September 2004 – July 2007
Ankara University	Ankara, Turkey
BS in Elementary Education	September 2000 – July 2004

Skills

Programming
R, SPSS, SAS, Mplus, Python, JASP, AMOS

Research
Psychometrics, statistical data analysis, advanced research methods, longitudinal data analysis, data visualization, item response theory, classical test theory, large scale assessment, measurement invariance, DIF.

Scholarships

Postdoctoral fellowship	
TUBITAK-Turkey	September 2021- August 2022
PhD scholarship	
TUBITAK-Turkey	September 2007- June 2010
Undergraduate scholarship	
Ministry of Education-Turkey	September 2000- June 2004

Employment History

University of Alberta	Edmonton, Canada
Data Analyst	August 2023 – present-Full Time
University of Alberta	Edmonton, Canada
Research Associate	August 2022 – August 2023-Full Time
University of Alberta	Edmonton, Canada
Visiting Professor	September 2021 – August 2022-Full Time
Bolu Abant Izzet Baysal University	Bolu, Turkey
Full Professor	June 2023 – March 2024-Full Time

Bolu Abant Izzet Baysal University Bolu, Turkey
Associate Professor February 2017 – June 2023-Full Time

Bolu Abant Izzet Baysal University Bolu, Turkey
Assistant Professor October 2010 – February 2017-Full Time

Ankara University Ankara, Turkey
Research Assistant January 2008 – October 2010-Full Time

Bolu Abant Izzet Baysal University Bolu, Turkey
Research Assistant December 2005 – January 2008-Full Time

Publications

Investigating the invariance of non-cognitive skills in countries with different immigration policies: A psychometric network approach.

Gorgun, G., Kilmen, S.

Social Psychology of Education (in press), doi:10.1007/s11218-023-09871-2, 2023.

Comparison of kernel equating methods under NEAT and NEC designs.

Ozsoy, S. N., Kilmen, S.

International Journal of Assessment Tools in Education, 10(1), 56-75.
doi:10.21449/ijate.981367, 2023.

Scale abbreviation with recursive feature elimination and genetic algorithms: An illustration with the test emotions questionnaire.

Kilmen, S., Bulut, O.

Information, 14(2), 63. doi:10.3390/info14020063, 2023.

Group differences in the Emotion Regulation During Test-Taking Scale: An explanatory item response modeling approach.

Kilmen, S., Bulut, O.

Current Psychology, 42(24), 20616-20628, doi:10.1007/s12144-022-03202-y, 2023.

Prospective teachers' professional achievement goal orientations, their self-efficacy beliefs, and perfectionism: A mediation analysis.

Kilmen, S.

Studies in Educational Evaluation, 74(2022), 101165.
doi:10.1016/j.stueduc.2022.101165, 2022.

Designing a shorter form of the big three perfectionism scale: An application of ant colony optimization.

Kilmen, S.

Journal of Psychoeducational Assessment, 40(2), 190-201.
doi:10.1177/07342829211055880, 2022

Investigation of secondary school students' attitudes towards Turkish lessons in terms of various variables by CHAID analysis.

Akgun, E., Kilmen, S.

Education and Science, 47(211), 121-137. doi:10.15390/EB.2022.10760, 2022.

Middle school students' mathematical resilience and perceptions of mathematics: A cluster analysis approach.

Ozturk, C., Kilmen, S.

Education and Science, 47(209), 155-170. doi:10.15390/EB.2022.10258, 2022.

Assessing measurement invariance of achievement emotions questionnaire for teachers in prospective teacher sample.

Kilmen, S.

International Journal of Assessment Tools in Education, 8(4), 842-854. doi:10.21449/ijate.756500, 2021.

The big three perfectionism scale is factor structure and measurement invariance in the Turkish sample.

Arikan, S., Kilmen, S.

Journal of Psychoeducational Assessment, 38(1), 53-68. doi:10.1177/07342829211055880, 2020.

Comparison of cut points according to Angoff, yes/no, and borderline group methods.

Kilic, A., Kilmen, S.

Bogazici University Journal of Education, 36(2), 47-66. 2019.

An example of empirical and model-based methods for performance descriptors: English proficiency test.

Arikan, S., Kilmen, S., Abi, M., Üstünel, E.

Journal of Measurement and Evaluation in Education and Psychology, 10(3), 219-234. doi: 10.21031/epod.477857, 2019.

Adaptation of the examination stress scale into Turkish and examination of measurement invariance.

Karaduman, B., Kilmen, S.

Measurement and Evaluation in Education and Psychology, 9(2), 101-115. doi: 10.21031/epod.330426., 2018.

Proficiency-based classroom assessment: 70 percent correct response method.

Arikan, S., Kilmen, S.

Elementary Education Online, 17(2), 888-908. doi:10.17051/ilkonline.2018.419337, 2018.

Examination of teachers' perceptions towards alternative assessment approaches with CHAID Analysis.

Kilmen, S., Kosterelioglu, I.

Elementary Education Online, 16(1), 256-273. doi: 10.17051/io.2017.50454. 2017.

Effect of DIF magnitudes, focal group sample size, and DIF ratio on the performance of SIBTEST.

Kilmen, S.

International Journal of Social Sciences and Education, 6(1), 91-97. 2016.

Comparison of item response theory test equating methods for mixed-format tests.

Uysal, I. Kilmen, S.

International Online Journal of Educational Sciences, 8(2), 1-11. doi: 10.15345/io-jes.2016.02.001. 2016.

Testing feedback orientations: The case of Turkish prospective teachers.

Kilmen, S.

Journal of Educational Sciences and Psychology, 6(2), 21-32. 2016.

Prospective teacher's metaphoric perceptions on test concept.

Kilmen, S.

International Online Journal of Educational Sciences, 7(3), 38-47. doi: 10.15345/io-jes.2015.03.020. 2015.

Why do the tests make us anxious?

Kilmen, S.

International Journal of Social Sciences and Education, 5(4), 604-612. 2015.

Examinations of the factor structure of the critical thinking disposition scale according to different variables.

Demircioğlu, E., Kilmen, S.

American Journal of Theoretical and Applied Statistics, 4(1), 1-8. doi: 10.11648/j.ajtas.s.2015040101.11, 2015.

An adaptation study of critical thinking disposition scale.

Demircioğlu, E., Kilmen, S.

The Journal of Academic Social Science Studies, 8(27), 203-208. doi: 10.9761/JASSS2434. 2014.

Comparison of test equating methods based on item response theory according to the sample size and ability distribution.

Kilmen, S., Demirtasli, R. N.

Procedia Social and Behavioral Sciences, 46, 130-134. doi: 10.1016/j.sbspro.2012.05.081, 2012.

The attitudes and opinions of the students towards mathematics course: The comparison of TIMSS 1999 and TIMSS 2007.

Bilican, S., Demirtasli, R. N., Kilmen, S.

Educational Sciences: Theory and Practice, 11(3), 1277-1283. 2011.

The perceptions of the Turkish language teachers about their application levels of measurement and evaluation and their views on the alternative approaches.

Kilmen, S., Beyhan, S.

Ege Journal of Education, 12(2), 83-104. 2011.

Primary school teachers' perceptions about their application levels of measurement and evaluation principles.

Kilmen, S., Demirtasli, R. N.

Ankara University Journal of Faculty of Educational Sciences, 42(2), 27-53, 2009.

Use of portfolios in learning adventure.

Kilmen, S.

Bolu Abant Izzet Baysal University Journal of Faculty of Education, 9(16), 141-154. doi: 10.11616/AbantSbe., 2008.

A study of the relationship between the civil servant selection examination and undergraduate cumulative general point averages according to several variables.

Kösterelioğlu, İ., Akın Kösterelioğlu, M., Kilmen, S.

Bolu Abant Izzet Baysal University Journal of Faculty of Education, 8(1), 151-160. 2008.

Prospective teachers' self-efficacy perceptions about measurement tools and approaches.

Kilmen, S., Kösterelioğlu, İ., Akın Kösterelioğlu, M.

Bolu Abant Izzet Baysal University Journal of Faculty of Education, 7(1), 117-127. 2007.

The investigation of the predictive validity of graduate education entrance examination and undergraduate grade point average.

Kilmen, S., Kösterelioğlu, İ., Akın Kösterelioğlu, M.

Bolu Abant İzzet Baysal University Journal of Faculty of Education, 7(2), 177–189.
2007.

Books

Eğitim araştırmacıları için SPSS uygulamalı istatistik (SPSS for education researchers (3rd edition))

Kilmen, S.

Ani Yayıncılık, 2020.

Book Chapters

Bir bilim olarak eğitim araştırmaları (Educational research as a science). In S. Çelenk (Ed.), Eğitime Giriş (Introduction to Education) (pp. 262-292).

Kilmen, S.

Pegem, 2018.

Ölçme ve değerlendirmede temel kavramlar (Basic concepts of measurement and evaluation). In N. Çıkrıkçı-Demirtaşlı (Ed.), Eğitimde Ölçme ve Değerlendirme (Measurement and Evaluation in Education) (4th edition) (pp. 25-56).

Kilmen, S.

Ani Yayıncılık, 2017.

Madde analizi, madde seçimi ve yorumlanması (Item analysis, item selection, and interpreting results). In N. Çıkrıkçı- Demirtaşlı (Ed.), Eğitimde Ölçme ve Değerlendirme (Measurement and Evaluation in Education) (4th edition) (pp. 327-348).

Kilmen, S.

Ani Yayıncılık, 2017.

A psychometric analysis of the questions related to the measuring of auditory skills in musical skills examinations. In Drujinin, A., Kostova, Z., Sharuho, I. and Atasoy, E. (Eds), The Science and Education at the Beginning of the 21st Century in Turkey.

Ece, A. S., Kilmen, S., Ömür, Ö.

St Kliment Ohridski University Press, 2013.

Attitudes and opinions of students towards science course: the comparison of surveys in trends in international mathematics and science study 1999 and 2007. In J. E. Kesner (Ed.), Education Evaluation and Reform and Policy.

Kilmen S., Demirtaşlı, R. N., Bilican.S.

Athens Institute for Education and Research, 2012.

Proceedings

DEMQOL-CH Differential Item Functioning: Do Proxy Assessors' Language and Ethnicity Matter?

Kilmen, S., Banerjee, S., Devkota, R., Doupe, M. B., Dymchuk, E., Duan, Y., Estabrooks, C. A., Keefe, J., Lam, J., O'Rourke, H., Saeidzadeh, S., Shrestha, S., Song, Y., Hoben, M.

Annual Meeting of the National Council on Measurement in Education, Chicago, USA, 2023.

Introducing network analysis for meaningful country and group comparisons in large-scale assessments.

Gorgun, G., Kilmen, S.

Annual Meeting of the National Council on Measurement in Education, Chicago, USA, 2023.

Creating short forms of psychological scales: Semantic similarity matters.

Kilmen, S., Bulut, O., Shin, J.

Annual Meeting of the National Council on Measurement in Education, Chicago, USA, 2023.

Comparison of Kernel equating methods: TIMSS 2019 science test.

Ozsoy, S. N., Kilmen, S.

7th International Congress on Measurement and Evaluation in Education and Psychology, Ankara, Turkey, 2021.

Examining variables predicting mathematical resilience: An application of exploratory item response modeling.

Kilmen, S., Sahin Baloglu, N.

7th International Congress on Measurement and Evaluation in Education and Psychology, Ankara, Turkey, 2021.

Adaptation of positive and negative rumination scale into the Turkish culture.

Aksoy, T., Kilmen, S.

7th International Congress on Measurement and Evaluation in Education and Psychology, Ankara, Turkey, 2021.

“Proficiency”: A new analysis software for defining proficiency levels in classical test and item response theories.

Yildiz, H., Kilmen, S., Arikan, S.

1st National Congress on Measurement and Evaluation Applications, İstanbul, Turkey. 2021.

Factor structure and measurement invariance of the big three perfectionism scale in a Turkish sample.

Kilmen, S., Arikan, S.

European Conference on Educational Research (ECER), Bolzano, Italiy, 2018.

Setting performance level descriptors for an English proficiency exam.

Kilmen, S., Arikan, S.

Conference (EDUCON), Ankara, Turkey, 2018.

Developing national student diagnosis test for 2018 science and art education centers.

Okay, H. H., Kilmen, S., Eren, A., Ece, A. S.

International Symposium on Fine Arts, Istanbul, Turkey, 2018.

Resilience and metaphors regarding mathematics and mathematics achievement.

Caglayan, C., Kilmen, S.

European Conference on Educational Research (ECER), Bolzano, Italiy, 2018.

The scale for tendencies of using alternative assessment approaches: Reliability and validity studies.

Kilmen, S., Kosterelioglu, I., Akin Kosterelioglu, M.

International Academic Conference Education Humanities and Social Sciences, Barcelona, Spain, 2015.

A study on rubrics uses in problem solving process.

Kilmen, S., Ozmen Hizarcioglu, B.

International Academic Conference on Education Teaching and Learning, Prague, Czech Republic, 2013.

The tendencies in the answers to the students that took place in TIMSS 1999 and TIMSS 2007 science course practices.

Kilmen, S., Demirtasli, R. N., Bilican, S.

12th Annual International Conference on Education, Athens, Greece, 2012.

Ideological orientations scale related to school vandalism.

Ogulmus, S., Kose, I. A., Kilmen, S.

1st Measurement and Evaluation in Education and Psychology Congress, Ankara, Turkey, 2008.

Resim-iş öğretmenliği giriş yetenek sınavı: yordama geçerliği ve sınavın çeşitli değişkenlere göre incelenmesi.

Kilmen, S., Cakan, M.

16th Educational Sciences Congress, Tokat, Turkey, 2007.