

Prof. SERKAN YILMAZ

Personal Information

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International Researcher IDs

ScholarID: 1696182561161

ORCID: 0000-0003-1800-0765

Publons / Web Of Science ResearcherID: I-8770-2013

Yoksis Researcher ID: 35180

Education Information

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Secondary Science and Mathematics Education, Turkey 2001 - 2007

Postgraduate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Secondary Science and Mathematics Education, Turkey 1998 - 2001

Undergraduate, Middle East Technical University, Faculty Of Education, Mathematics And Science Education, Turkey 1994 - 1998

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Finding anchoring analogies to help students misconceptions in physics, Middle East Technical University, Faculty Of Education, Mathematics And Science Education, 2007

Postgraduate, The Effects of bridging analogies on high school students' misconceptions in mechanics, Middle East Technical University, Faculty Of Education, Mathematics And Science Education, 2001

Research Areas

Social Sciences and Humanities, Education, Elementary School Education, Teacher Training in Natural Sciences, Education in Natural Sciences, Education in Physics

Academic Titles / Tasks

Professor, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2024 - Continues

Associate Professor, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2020 - 2024

Assistant Professor, Hacettepe University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2018 - 2020
Assistant Professor, Hacettepe University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2011 - 2018
Researcher, University of Florida, College of Education, 2013 - 2013
Lecturer, Hacettepe University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2007 - 2011
Research Assistant, Hacettepe University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2002 - 2007
Research Assistant, Middle East Technical University, Vocational School, 1999 - 2002

Academic and Administrative Experience

Ethics Committee Member, Hacettepe University, Eğitim Bilimleri Enstitüsü, Matematik Ve Fen Bilimleri Eğitimi A.B.D., 2024 - Continues
Faculty Sports Coordinator, Hacettepe University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2010 - Continues
Faculty Management Board Member, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2018 - 2024

Courses

Doctorate

FBÖ700 Special Studies, Doctorate, 2020 - 2021
FBÖ703 Quantitative Research Methods, Doctorate, 2020 - 2021

Postgraduate

FBÖ600 Special Studies, Postgraduate, 2020 - 2021

Undergraduate

FBÖ402 Practice Teaching, Undergraduate, 2020 - 2021
FBÖ390 Serving to Public Applications, Undergraduate, 2020 - 2021
FBÖ122 General Physics II, Undergraduate, 2020 - 2021
FEN122 Physics II, Undergraduate, 2020 - 2021
FEN290 Serving to Public Applications, Undergraduate, 2020 - 2021
FBÖ121 General Physics I, Undergraduate, 2020 - 2021
FEN407 Misconceptions in Science Education, Undergraduate, 2019 - 2020
FEN121 Physics I, Undergraduate, 2020 - 2021
FBÖ401 School Experience, Undergraduate, 2020 - 2021
FBÖ323 Special Topics in Physics, Undergraduate, 2020 - 2021

Supervised Theses

Yılmaz S., DİSİPLİNLERÜSTÜ ÇEVRE EĞİTİM PROGRAMININ ORTAOKUL ÖĞRENCİLERİNİN ÇEVRE BİLİNCİNE ETKİSİ, Doctorate, G.ÖZDEMİR(Student), 2023
Yılmaz S., THE EFFECT OF ARGUMENTATION AND AUTHENTIC LEARNING BASED STEM ACTIVITIES ON 21ST CENTURY SKILLS AND ACADEMIC ACHIEVEMENT, Doctorate, M.AKİF(Student), 2023
Yılmaz S., Fen bilgisi öğretmen adaylarının sosyal medyaya yönelik tutumları ile e-öğrenme stillerinin çeşitli değişkenler açısından incelenmesi, Postgraduate, D.UÇAR(Student), 2022
Yılmaz S., the classification of activities in science textbooks in terms of skills related to the field , Postgraduate, G.ALIN(Student), 2019
Yılmaz S., The impact of different data sources used in various socioscientific issues on the quality of formed argumentations and science achievement, Postgraduate, E.Ergunt(Student), 2019
Yılmaz S., 7. sınıf öğrencilerinin yerel sosyobilimsel konularda oluşturdukları argümantasyonların kalitesi ve karar

verirken dikkate aldıkları faktörlerin incelenmesi, Doctorate, E.ÇAPKINOĞLU(Student), 2015

Yılmaz S., Kavram karikatürlerinin ilköğretim yedinci sınıf öğrencilerinin basit elektrik devreleri konusundaki kavram yanlışları üzerindeki etkisi, Postgraduate, N.ATILGANLAR(Student), 2014

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **PRE-SERVICE SCIENCE TEACHERS' E-LEARNING STYLES**
Ucar D., YILMAZ S.
Journal of Baltic Science Education, vol.22, no.1, pp.167-181, 2023 (SSCI)
- II. **Quality of argumentation by seventh-graders in local socioscientific issues**
Capkinoglu E., Yılmaz S., Leblebicioğlu G.
JOURNAL OF RESEARCH IN SCIENCE TEACHING, vol.57, no.6, pp.827-855, 2020 (SSCI)
- III. **Examining the Data Component Used by Seventh Grade Students in Arguments Related to Local Socioscientific Issues**
Capkinoglu E., YILMAZ S.
EGITIM VE BILIM-EDUCATION AND SCIENCE, vol.43, no.196, pp.125-149, 2018 (SSCI)
- IV. **Effect of Case Study Method on Preservice Teachers' Anxieties toward Chemistry Laboratory**
Seckin M., YILMAZ S.
HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION, vol.29, no.2, pp.215-227, 2014 (SSCI)
- V. **Investigating Prospective Elementary Teachers' Understanding of Analogical Cases in Newton's Third Law**
Yılmaz S.
EGITIM ARASTIRMALARI-EURASIAN JOURNAL OF EDUCATIONAL RESEARCH, vol.10, no.41, pp.201-219, 2010 (SSCI)
- VI. **Integrating Gender and Group Differences into Bridging Strategy**
YILMAZ S., ERYILMAZ A.
JOURNAL OF SCIENCE EDUCATION AND TECHNOLOGY, vol.19, no.4, pp.341-355, 2010 (SCI-Expanded)
- VII. **THE DEVELOPMENT OF ANCHORING ANALOGY DIAGNOSTIC TEST**
YILMAZ S., ERYILMAZ A.
HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION, no.37, pp.243-256, 2009 (SSCI)

Articles Published in Other Journals

- I. **Examination of secondary school students' environmental awareness and environmental motivation levels after Covid-19**
Yılmaz S., Konakçı A. A.
Trakya Eğitim Dergisi, vol.14, no.3, pp.1364-1379, 2024 (Peer-Reviewed Journal)
- II. **Sosyobilimsel konularda farklı kaynaklardan bilgi edinen 8. sınıf öğrencilerinin ön ve son argümantasyon kalitelerinin incelenmesi**
Ergunt E., Yılmaz S.
Kocaeli Üniversitesi Eğitim Dergisi (Online), vol.7, no.1, pp.119-142, 2024 (Peer-Reviewed Journal)
- III. **Science Teachers' Burnout Levels in Terms of School Climate and Various Variables**
Yılmaz S., Özkanbaş M.
KAFKAS EĞİTİM ARAŞTIRMALARI DERGISİ, vol.10, no.3, pp.489-504, 2023 (Peer-Reviewed Journal)
- IV. **Argümantasyon ve Otantik Öğrenme Tabanlı STEM Uygulamalarının Akademik Başarıya Etkisi**
Kurtuluş M. A., Yılmaz S.
YAŞADIKÇA EĞİTİM, vol.37, no.3, pp.649-669, 2023 (Peer-Reviewed Journal)

- V. **Disiplinlerüstü Çevre Eğitimi Programına Yönelik Ortaokul Öğrenci ve Öğretmenlerinin Görüşleri**
Özdemir G., Yılmaz S.
Başkent University Journal of Education, vol.10, no.2, pp.177-192, 2023 (Peer-Reviewed Journal)
- VI. **Fen Bilgisi Öğretmen Adaylarının COVID-19 Sonrası Sosyal Medyaya Yönelik Tutumlarının İncelenmesi**
Uçar D., Yılmaz S.
BAYBURT EĞİTİM FAKÜLTESİ DERGİSİ, vol.18, no.39, pp.724-744, 2023 (Peer-Reviewed Journal)
- VII. **A Different Perspective on STEM Education Studies: Bibliometric Mapping**
Kurtuluş M. A., Yılmaz S.
Fen Bilimleri Öğretimi Dergisi, vol.10, no.2, pp.386-405, 2022 (Peer-Reviewed Journal)
- VIII. **Argümantasyon Tabanlı Bilim Öğrenme Yaklaşımının İlkokul Öğrencilerinin Akademik Başarılarına ve Argümantasyon Kalite Düzeylerine Etkisi**
Kara S., Yılmaz S., Kingir S.
Kastamonu Üniversitesi Kastamonu Eğitim Dergisi, vol.28, no.3, pp.1253-1267, 2020 (Peer-Reviewed Journal)
- IX. **The Impact of Open Inquiry Based Learning on Students' Achievement and Development of Science Process Skills**
Kaya G., Yılmaz S.
HACETTEPE ÜNİVERSİTESİ EĞİTİM FAKÜLTESİ DERGİSİ / HACETTEPE UNIV., JOURNAL OF FACULTY OF EDUCATION, vol.31, no.2, pp.300-318, 2016 (ESCI)
- X. **The effect of explicit-reflective and historical approach on preservice elementary teachers' views of nature of science**
Pekbay C., Yılmaz S.
International Journal of Progressive Education, vol.11, no.1, pp.113-131, 2015 (Peer-Reviewed Journal)
- XI. **Effects of virtual experiments oriented science instruction on students' achievement and attitude**
Sanal Deneylere Dayalı Yapılan Öğretimin Öğrenci Başarısına ve Tutumuna Etkisi
Sari Ay Ö., YILMAZ S.
Elementary Education Online, vol.14, no.2, pp.609-620, 2015 (Scopus)
- XII. **Assessing the Impact of Bridging Analogies in Mechanics**
YILMAZ S., ERYILMAZ A., GEBAN Ö.
SCHOOL SCIENCE AND MATHEMATICS, vol.106, no.6, pp.220-230, 2006 (ESCI)
- XIII. **Analysis of Preservice Science Teachers' Attitudes toward Mechanics' Concepts**
Yılmaz S.
Eğitim Araştırmaları, vol.24, pp.199-208, 2006 (Peer-Reviewed Journal)
- XIV. **The place of mnemonics in physics education**
Yılmaz S.
Çağdaş Eğitim Dergisi, vol.30, no.320, pp.30-37, 2005 (Peer-Reviewed Journal)
- XV. **The Effect of Information Processing Model Based Lesson on Preservice Science Teachers' Achievement in Magnetism**
YILMAZ S.
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, vol.2005, no.28, pp.236-243, 2005 (Peer-Reviewed Journal)
- XVI. **Effects of bridging analogies on students' misconceptions about gravity and inertia**
Yılmaz S.
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, vol.20, pp.1-8, 2001 (ESCI)

Books

- I. **Secondary School Physics 9th Textbook**
Yılmaz S. (Editor)
Pasifik Yayınevi, Ankara, 2012

Papers Published in Refereed Scientific Meetings

- I. **The Impact of Argument-Based Inquiry Approach on Fourth Grade Students' Achievement in the Effects of Force Unit**
Kara S., Yılmaz S., Kingır S.
European Conference on Educational Research (ECER), Bolzano, Italy, 4 - 07 September 2018
- II. **What can Analogical Cases Spectrums Tell Us? Identifying the Properties**
Yılmaz S.
Twelfth Congress of Qualitative Inquiry, Illinois, United States Of America, 18 - 20 May 2016, pp.46
- III. **Exploring Students' Quality of Argumentation about Local Socio-Scientific Issues in Different Learning Contexts**
Çapknoğlu-Yardımcı E., Yılmaz S., Leblebicioğlu G.
The National Association for Research in Science Teaching (NARST), Maryland, United States Of America, 14 - 17 April 2016
- IV. **Preservice Science Teachers' Opinions related to Context Based Learning and Eligible Contexts: A Longitudinal Study**
Yılmaz S.
Tenth Congress of Qualitative Inquiry, Illinois, United States Of America, 21 - 24 May 2014
- V. **The Analysis of Factors Affecting the Science Success of Turkish Students in the PISA 2009 by Structural Equation Modeling**
Albayrak Sarı A., Yılmaz S.
World Conference of Educational Sciences, Rome, Italy, 5 - 08 February 2013
- VI. **The effect of using v-diagrams in science and technology laboratory teaching on preservice teachers' critical thinking dispositions**
EVREN A., BATI K., YILMAZ S.
4th World Conference on Educational Sciences (WCES), Barcelona, Spain, 2 - 05 February 2012, vol.46, pp.2267-2272

Other Publications

- I. **Book Review: Scientific Research Methods**
Yılmaz S.
Other, pp.1-5, 2014
- II. **Book Review: Experimental Designs: Pretest-Posttest Control Group Design and Data Analysis**
Yılmaz S.
Other, pp.1-3, 2013
- III. **Book Review: Computer I-II - Basic Computer Skills**
Yılmaz S.
Other, pp.17-20, 2011

Metrics

Publication: 33

Citation (WoS): 67

Citation (Scopus): 66

H-Index (WoS): 5

H-Index (Scopus): 5

Non Academic Experience

University of Florida, Misafir Arařtırmacı
TED, Asistan