

Assoc. Prof. CEYLAN GÜLER

Personal Information

Email: ceylan.guler@bozok.edu.tr

Web: <https://avesis.bozok.edu.tr/ceylan.sen>

International Researcher IDs

ORCID: 0000-0002-6384-7941

Publons / Web Of Science ResearcherID: W-3710-2017

ScopusID: 56191589300

Yoksis Researcher ID: 47222

Education Information

Doctorate, Hacettepe University, Eğitim Bilimleri Enstitüsü, İlköğretim (Dr), Turkey 2013 - 2018

Postgraduate, Istanbul University, Institute Of Graduate Studies In Sciences, Turkey 2010 - 2013

Undergraduate, Istanbul University, Hasan Ali Yücel Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, Turkey 2006 - 2010

Dissertations

Doctorate, Mühendislik tasarımı odaklı bütünlük STEM etkinliklerinde üstün zekâ ve yetenekli öğrencilerin kullandığı beceriler, Hacettepe University, Eğitim Bilimleri Enstitüsü, 2018

Postgraduate, Öğretmen adaylarının fen eğitiminde matematiğin kullanımına yönelik faktörlerin araştırılması, Istanbul University, Institute Of Graduate Studies In Sciences, 2013

Research Areas

Elementary School Education, Teacher Training For Elementary Sch. Edu. in Mathematics

Academic Titles / Tasks

Associate Professor, Yozgat Bozok University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi, 2023 - Continues

Assistant Professor, Yozgat Bozok University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi, 2023 - 2023

Assistant Professor, Yozgat Bozok University, Eğitim Fakültesi, Temel Eğitim, 2019 - 2023

Research Assistant, Yozgat Bozok University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi, 2012 - 2019

Academic and Administrative Experience

Eğitim-Öğretim Komisyon Üyeliği, Yozgat Bozok University, Eğitim Fakültesi, 2021 - Continues

Öğrenci Topluluğu Akademik Danışmanlığı, Yozgat Bozok University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi, 2022 - 2023

YOBÜ YOS Sınav Komisyonu Üyeliği, Yozgat Bozok University, 2020 - 2023

Courses

İLKOKULDA MATEMATİK ÖĞRETİMİ, Postgraduate, 2022 - 2023
MATEMATİK ÖĞRETİMİNDE MODELLEME, Undergraduate, 2021 - 2022
MATEMATİĞİN TEMELLERİ 1, Undergraduate, 2022 - 2023
MATEMATİK ÖĞRETİMİNDE YENİ YAKLAŞIMLAR, Postgraduate, 2022 - 2023
MATEMATİĞİN TEMELLERİ 2, Undergraduate, 2021 - 2022
TEZ ÇALIŞMASI, Postgraduate, 2022 - 2023
OLASILIK, Undergraduate, 2021 - 2022
MATEMATİK ÖĞRETİMİNDE MATERYAL TASARIMI, Undergraduate, 2021 - 2022
MATEMATİK ÖĞRETİMİNDE ETKİNLİK GELİŞTİRME, Undergraduate, 2022 - 2023
MATEMATİK ÖĞRETİMİNDE KAVRAM YANILGILARI, Undergraduate, 2022 - 2023
MATEMATİK EĞİTİMİNDE KAVRAM YANILGILARI VE GİDERİLMESİNDE KULLANILAN YÖNTEM VE TEKNİKLER, Postgraduate, 2022 - 2023
İLKOKUL VE ORTAOKULDA CEBİR ÖĞRETİMİ, Postgraduate, 2021 - 2022
GEOMETRİ VE ÖLÇME ÖĞRETİMİ, Undergraduate, 2022 - 2023
ERKEN ÇOCUKLUKTA MATEMATİK EĞİTİMİ, Undergraduate, 2022 - 2023
ÖĞRETMENLİK UYGULAMASI 1, Undergraduate, 2022 - 2023
EĞİTİM ARAŞTIRMALARINDA NİTEL VERİ ANALİZİ, Postgraduate, 2021 - 2022
CEBİR ÖĞRETİMİ, Undergraduate, 2021 - 2022
MATEMATİK ÖĞRENME VE ÖĞRETİM YAKLAŞIMLARI, Undergraduate, 2022 - 2023
ÜSTÜN YETENKLİ ÖĞRENCİLERE MATEMATİK EĞİTİMİ, Undergraduate, 2020 - 2021
İSTATİSTİK, Undergraduate, 2021 - 2022

Advising Theses

Güler C., Üstün Yetenekli Öğrencilerin Kuadratik Örüntüleri Genelleme ve Gerekçeleştirme Süreçlerinin İncelenmesi, Postgraduate, A.TERZİ(Student), Continues
Güler C., Dörtgen Konusunun Öğretiminde Van Hiele Öğretim Çerçevesinin 7.Sınıf Öğrencilerinin Geometrik Düşünme Düzeylerine Etkililiğinin Araştırılması: Bir Öğretim Deneyi Modeli, Postgraduate, A.ÇALIŞKAN(Student), Continues
Güler C., Güler G., ATBÖ TEMELLİ TOULMİN MODELİNİN ORTAOKUL ÖĞRENCİLERİNDE ÖRÜNTÜ GENELLEME VE GEREKÇELENDİRME STRATEJİLERİ ÜZERİNE ETKİLİLİĞİ: BİR ÖĞRETİM DENEYİ ÇALIŞMASI, Postgraduate, H.YALÇIN(Student), Continues
Şen C., Yedinci Sınıf Öğrencilerinin Genişleyen Örüntü Görevlerindeki Genelleme Süreçlerinin APOS Teoremi İle İncelenmesi, Postgraduate, E.CANLI(Student), 2022
Şen C., 4. sınıf öğrencilerinin cebirsel düşünme yapılarının gelişimini amaçlayan bir öğretim deneyi, Postgraduate, S.YÜCE(Student), 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- Computational thinking skills of gifted and talented students in integrated STEM activities based on the engineering design process: The case of robotics and 3D robot modeling**
ŞEN C., AY Z. S., Kiray S. A.
THINKING SKILLS AND CREATIVITY, vol.42, 2021 (SSCI)

Articles Published in Other Journals

- Fifth-Grade Students' Argumentation Structures in the Pool of Geometric Shapes**
GÜLER C., GÜLER G.
Araştırma Temelli Etkinlik Dergisi, vol.1, no.13, pp.1-13, 2023 (Peer-Reviewed Journal)

- II. **An early algebra teaching experiment aiming at the improvement of fourth-grade students' generalization and justification strategies**
YÜCE S., ŞEN C.
Hayef:journal of education (Online), vol.19, no.3, pp.195-209, 2022 (Peer-Reviewed Journal)
- III. **Emerging proof productions of freshmen in euclidean geometry proof tasks between conjecturing and proving**
ŞEN C., GÜLER G.
INVESTIGATIONS IN MATHEMATICS LEARNING, vol.14, no.4, pp.320-342, 2022 (Scopus)
- IV. **Gifted and talented students' views on engineering design-oriented integrated STEM**
ŞEN C., AY Z. S.
Bartın Üniversitesi Eğitim Fakültesi Dergisi, vol.11, no.2, pp.364-383, 2022 (Peer-Reviewed Journal)
- V. **Examining proof-writing skills of pre-service mathematics teachers' in geometric proofs: Van Hiele Model**
ŞEN C., GÜLER G.
Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi, vol.23, pp.128-176, 2022 (Peer-Reviewed Journal)
- VI. **Ortaokul matematik öğretmenlerinin oran ve orantı konusunda alan ve öğretme bilgisi**
ŞEN C.
Nevşehir Hacı Bektaş Veli Üniversitesi SBE Dergisi, vol.12, no.1, pp.309-328, 2022 (Peer-Reviewed Journal)
- VII. **Examining the Effectiveness of Teaching Through Definitions in the Definition and Conceptualization of Number Sets by Pre-Service Mathematics Teachers***
ŞEN C., GÜLER G.
Hacettepe Eğitim Dergisi, vol.37, no.3, pp.969-993, 2022 (ESCI)
- VIII. **Reasoning skills of children aged between 4 and 6 years in repeating pattern tasks**
ŞEN C., GÜLER G.
International Journal of Mathematical Education in Science and Technology, vol.53, no.7, pp.1894-1915, 2022 (ESCI)
- IX. **Assessment of a middle-school mathematics teacher's knowledge for teaching the 5th-grade subject of fractions**
ŞEN C.
Türk Bilgisayar ve Matematik Eğitimi Dergisi, vol.12, no.1, pp.96-138, 2021 (Peer-Reviewed Journal)
- X. **The Effectiveness of Inquiry-Based Learning on Middle School Students' Mathematics Reasoning Skill**
ŞEN C., AY Z. S., GÜLER G.
Athens Journal of Education, vol.8, pp.1-24, 2020 (Scopus)
- XI. **The investigation of prospective mathematics teachers' non-algebraic solution strategies for word problems**
Ocal M. F., ŞEN C., GÜLER G., KAR T.
INTERNATIONAL JOURNAL OF MATHEMATICAL EDUCATION IN SCIENCE AND TECHNOLOGY, vol.51, no.4, pp.563-584, 2020 (ESCI)
- XII. **A design-oriented STEM activity for students' using and improving their engineering skills: the balance model with 3D printer**
ŞEN C., AY Z. S., Kiray S. A.
SCIENCE ACTIVITIES-PROJECTS AND CURRICULUM IDEAS IN STEM CLASSROOMS, vol.57, no.2, pp.88-101, 2020 (ESCI)
- XIII. **Matematik eğitiminde model oluşturma etkinlikleri ve 3D yazıcılar**
ŞEN C., GÜLER G.
Apsistek Aylık Matematik Dergisi, 2020 (Non Peer-Reviewed Journal)
- XIV. **Engineering Skills that Emerge During Model-Eliciting Activities (MEAs) Based on 3d Modeling Done with Mathematics Pre-Service Teachers**
GÜLER G., ŞEN C., AY Z. S., ÇİLTAŞ A.
INTERNATIONAL JOURNAL OF EDUCATION IN MATHEMATICS SCIENCE AND TECHNOLOGY, vol.7, no.3, pp.251-270, 2019 (ESCI)

- XV. **Comparing the development of the multiplication of fractions in Turkish and American textbooks**
KAR T., GÜLER G., SEN C., ÖZDEMİR E.
INTERNATIONAL JOURNAL OF MATHEMATICAL EDUCATION IN SCIENCE AND TECHNOLOGY, vol.49, no.2, pp.200-226, 2018 (ESCI)
- XVI. **Effect of Strategy Teaching For the Solution of Ratio Problems on Students's Proportional Reasoning Skills**
ŞEN C., GÜLER G.
The Malaysian Online Journal of Educational Sciences (MOJES), vol.5, no.2, pp.1-15, 2017 (Peer-Reviewed Journal)
- XVII. **Investigation Of Mathematics Teachers' Level Of Following Understanding, And Applying Educational Research**
GÜLER G., ŞEN C., SABANCI Ö.
International Online Journal of Educational Sciences, vol.9, no.1, pp.40-64, 2017 (Peer-Reviewed Journal)
- XVIII. **The views of middle school mathematics teachers on the integration of science and technology in mathematics instruction**
ŞEN C., AY Z. S.
IFO DICE REPORT, vol.3, no.1, pp.151-170, 2017 (Peer-Reviewed Journal)
- XIX. **Effect of strategy teaching for the solution of ratio problems on students' proportional reasoning skills**
ŞEN C., GÜLER G.
Malaysian Online Journal of Educational Sciences, vol.5, no.2, pp.1-15, 2017 (Peer-Reviewed Journal)
- XX. **The impact of inquiry based instruction on science process skills and self-efficacy perceptions of pre-service science teachers at a university level biology laboratory**
ŞEN C., SEZEN VEKLİ G.
UNIVERSAL JOURNAL OF EDUCATIONAL RESEARCH, vol.4, no.3, pp.603-612, 2016 (Peer-Reviewed Journal)
- XXI. **Examination of secondary school seventh graders' proof skills and proof schemes**
ŞEN C., GÜLER G.
UNIVERSAL JOURNAL OF EDUCATIONAL RESEARCH, vol.3, no.9, pp.617-631, 2015 (Peer-Reviewed Journal)
- XXII. **A critical analysis to 5th grade elementary science education textbook**
ERTEN S., ŞEN C., YÜZÜAK A. V.
International Journal of Humanities Social Sciences and Education, vol.2, no.1, pp.60-65, 2015 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Cebir uygulamaları ile ilkokul ve ortaokulda cebir öğretimi**
ŞEN C., GÜLER G.
Vizetek Yayıncılık, Ankara, 2022
- II. **Orantısal akıl yürütme**
ŞEN C.
in: Mantıksal akıl yürütme, Erdem, Emrullah, Editor, Pegem Akademi, Ankara, pp.295-316, 2022
- III. **Matematik eğitiminde bütünleşik STEM ve uygulamaları**
ŞEN C., AY Z. S.
in: Matematik eğitiminde yenilikçi teknolojiler, Yıldız, Esra; Arpacı, İbrahim, Editor, Anı Yayıncılık, Ankara, pp.125-143, 2021
- IV. **Out-of-school mathematics environments**
ŞEN C., GÜLER G.
in: Education research highlights in mathematics, science and technology, Zayyada, Muhammad; Unsal, Atilla Ayaz, Editor, ISRES Publishing, pp.120-133, 2020
- V. **STEM skills in the 21st century education**
ŞEN C., AY Z. S., KIRAY S. A.

Refereed Congress / Symposium Publications in Proceedings

- I. **Elementary school students' generalization strategies in pattern tasks: The 4th grade sample**
ŞEN C., YÜCE S.
19. Uluslararası Sınıf Öğretmenliği Sempozyumu, Turkey, 12 - 14 November 2021
- II. **An investigation of reasoning and modeling skills of pre-school students in pattern activities**
ŞEN C., GÜLER G.
International Online Conference on Mathematics Education, İstanbul, Turkey, 26 - 29 May 2021
- III. **Sınıf öğretmenlerinin toplama-çıkarma işlemlerine ilişkin kavram yanılışı bilgileri**
YÜCE S., ŞEN C.
14. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi, Burdur, Turkey, 19 - 21 May 2021
- IV. **Ortaokul 7. sınıf ders kitaplarında yer alan rasyonel sayılar ve işlemler konusu etkinliklerinin bilişsel düzeyleri**
ŞEN C., YÜCE S.
14. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi, Burdur, Turkey, 19 - 21 May 2021
- V. **An analysis of the influence of inquiry-based mathematics instruction on students' skills: A case of ratio and proportion subject**
AY Z. S., ŞEN C.
International Conference on Education in Mathematics, Science & Technology (ICEMST), Kuşadası, Turkey, 18 - 21 May 2017
- VI. **An analysis of Science and Arts Center (BILSEM) education process for gifted and talented students in terms of STEM**
ŞEN C., KIRAY S. A., AY Z. S.
International Conference on Education in Mathematics, Science & Technology (ICEMST), İzmir, Turkey, 18 - 21 May 2017
- VII. **DETERMINING PRE-SERVICE TEACHERS' USE OF REPRESENTATION REGARDING UNIT CIRCLE**
ŞEN C., GÜLER G.
International Conference on Research in Education and Science (ICRES), İzmir, Turkey, 18 - 21 May 2017
- VIII. **Determining content and pedagogical content knowledge of mathematics teachers in relation to rational numbers and fractions**
AY Z. S., ŞEN C.
International Conference on Research in Education and Science (ICRES), Kuşadası, Turkey, 18 - 21 May 2017
- IX. **İlköğretim matematik öğretmenlerinin negatif sayılar konusuna yönelik pedagojik alan bilgilerinin belirlenmesi**
ŞEN C., AY Z. S.
12. Ulusal Fen ve Matematik Eğitimi Kongresi, Trabzon, Turkey, 28 - 30 September 2016
- X. **Türk ve Amerikan ders kitaplarında oran-orantı konusunda kullanılan problemlerin karşılaştırılması**
KAR T., GÜLER G., ŞEN C.
12. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi, Trabzon, Turkey, 28 - 30 September 2016
- XI. **TÜRK VE AMERİKAN DERS KİTAPLARINDA ORAN-ORANTI KONUSUNDA KULLANILAN PROBLEMLERİN KARŞILAŞTIRILMASI**
KAR T., GÜLER G., ŞEN C.
12. ULUSAL FEN BİLİMLERİ VE MATEMATİK EĞİTİMİ KONGRESİ, Trabzon, Turkey, 28 - 30 September 2016
- XII. **An Investigation on Geometrical Reasoning and Proof Skills of Pre-service Elementary Mathematics Teachers**
AY Z. S., ŞEN C., GÜLER G.
VIII. International Congress of Educational Research, Çanakkale, Turkey, 5 - 08 May 2016

- XIII. **A determination of teachers' pedagogical content knowledge to ratio and proportion**
AY Z. S., ŞEN C.
International Conference on Educational Mathematics Science and Technology (ICEMST), Bodrum, Turkey, 19 - 22 May 2016
- XIV. **An investigation of teachers' views about the integration of science and technology into teaching mathematics**
ŞEN C., AY Z. S.
International Conference on Educational Mathematics Science and Technology (ICEMST), Bodrum, Turkey, 19 - 22 May 2016
- XV. **Examination of elementary school students problem solving and problem posing skills**
EKMEKÇİ S., ŞEN C., GÜLER G.
XV. Uluslararası Sınıf Öğretmenliği Eğitimi Sempozyumu (USOS), Muğla, Turkey, 11 - 14 May 2016
- XVI. **An investigation on geometrical reasoning and proof skills of pre-service elementary mathematics teachers**
AY Z. S., ŞEN C., GÜLER G.
VIII. International Congress of Educational Research (ICER), Çanakkale, Turkey, 5 - 08 May 2016
- XVII. **Determination of the elementary mathematics education teachers' opinions for STEM**
ŞEN C., SABANCI Ö.
International Association of Social Science Research (IASSR), Paris, France, 3 - 06 March 2016
- XVIII. **Examining the popular science books for kids in terms of science process skills**
SABANCI Ö., ŞEN C., KINGIR S.
International Association of Social Science Research (IASSR), Paris, France, 3 - 06 March 2016
- XIX. **An investigation into error types of students' answers in proportional reasoning problems**
SABANCI Ö., KINGIR S., ŞEN C.
International Society of Educational Research (ISER), İstanbul, Turkey, 10 - 12 June 2015
- XX. **Investigation of pre-service science teachers' levels of using mathematics in teaching science self-efficacy and mathematical literacy self-efficacy**
ŞEN C.
VI. International Congress of Educational Research (ICER), Ankara, Turkey, 5 - 08 June 2014
- XXI. **Critical analysis of 5th grade science education textbook**
ERTEN S., ŞEN C., YÜZÜAK A. V.
International Conference on Education in Mathematics, Science & Technology (ICEMST), Konya, Turkey, 16 - 18 May 2014
- XXII. **Teachers' view on educational research**
ŞEN C., BEDİR H., SARAÇ YILDIRIM E.
International Conference on Education in Mathematics, Science & Technology (ICEMST), Konya, Turkey, 16 - 18 May 2014
- XXIII. **Examination of preservice science teachers' self-efficacy levels on mathematical literacy**
ŞEN C., KIRBAŞLAR F. G.
European Conference on Social and Behavioral Sciences, İstanbul, Turkey, 19 - 21 June 2013
- XXIV. **Investigation of preservice science teachers' self-efficacy levels according to some variables for the use of mathematics in science education**
ŞEN C., KIRBAŞLAR F. G.
V. International Congress of Educational Research (ICER), Çanakkale, Turkey, 6 - 09 June 2013

Supported Projects

Güler C., TÜBİTAK Project, Ortaokul Matematik Öğretmenlerinin Teknolojik Pedagojik Alan Bilgilerinin Geliştirilmesi, 2022 - 2023

GÜLER C., YÜCE S., GÜLER G., NAMLI Ş., Project Supported by Higher Education Institutions, Cebir Öncesi Dönemdeki

Öğrencilerin Cebirsel Düşünce Gelişimlerinin İncelenmesi, 2021 - 2023

Güler C., TUBITAK Project, Fen ve Matematiğin Gizemli Dünyası Keşfediliyor Küçük Mucitler İş Başında, 2015 - 2015

Metrics

Publication: 52

Citation (WoS): 22

Citation (Scopus): 38

H-Index (WoS): 2

H-Index (Scopus): 3

Non Academic Experience

Uğur Dershaneleri