

# Prof. ÖZGÜR ÖZCAN

## Personal Information

**Office Phone:** [+90 312 297 6788](tel:+903122976788)

**Email:** [ozcano@hacettepe.edu.tr](mailto:ozcano@hacettepe.edu.tr)

**Web:** <https://avesis.hacettepe.edu.tr/ozcano>

**Address:** H.Ü. Eğitim Fakültesi B Blok, MFBE Bölümü, Fizik Eğitimi Ana Bilim Dalı, 06800 Beytepe Ankara

## International Researcher IDs

ORCID: 0000-0001-8945-7418

Publons / Web Of Science ResearcherID: H-3187-2011

ScopusID: 36874009500

Yoksis Researcher ID: 33825

## Education Information

Doctorate, Hacettepe University, Eğitim Fakültesi / Fen Bilimleri Enst., Ofmae Bölümü / Fizik Eğitimi, Turkey 2005 - 2009

Masters (Non-Thesis), Hacettepe University, Eğitim Fakültesi, Ofmae Bölümü / Fizik Eğitimi, Turkey 1998 - 2004

## Research Areas

Social Sciences and Humanities, Education in Physics, Teacher Training, Teacher Training For Secondary School, Teacher Training in Science and Math. at Second. Sch. Lev.

## Academic Titles / Tasks

Professor, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2018 - Continues

Associate Professor, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2012 - 2018

Assistant Professor, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2012 - 2012

Lecturer, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2009 - 2012

Research Assistant, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2006 - 2009

## Academic and Administrative Experience

Vice Dean, Hacettepe University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2019 - 2021

Hacettepe Üniversitesi, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2016 - 2018

## Advising Theses

Özcan Ö., Lise öğrencilerinin sürtünme kuvveti, ivme ve eylemsizlik kavramlarıyla ilgili bilişsel yapılarının araştırılması, Postgraduate, E.TAVUKÇUOĞLU(Student), 2018

Özcan Ö., Fizik öğretmen adaylarının elektrik alan ve manyetik alan ile ilgili zihinsel modelleri, Doctorate, T.DİNÇER(Student), 2018

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Pre-service physics teachers' mental models about the electric field**  
DİNÇER T., ÖZCAN Ö.  
EUROPEAN JOURNAL OF PHYSICS, vol.43, no.2, 2022 (SCI-Expanded)
- II. **Multidimensional analyzing of the microteaching applications in teacher education via videograph**  
ÖZCAN Ö., GERÇEK C.  
EUROPEAN JOURNAL OF TEACHER EDUCATION, vol.42, no.1, pp.82-97, 2019 (SSCI)
- III. **Determining the understanding levels of pre-service physics teachers about magnetic induction**  
DİNÇER T., ÖZCAN Ö.  
CANADIAN JOURNAL OF PHYSICS, vol.96, no.7, pp.756-758, 2018 (SCI-Expanded)
- IV. **The development of the nature of science view scale (NOSvs) at university level**  
TEMEL S., ŞEN Ş., ÖZCAN Ö.  
RESEARCH IN SCIENCE & TECHNOLOGICAL EDUCATION, vol.36, no.1, pp.55-68, 2018 (SSCI)
- V. **VALIDITY AND RELIABILITY ANALYSES FOR THE NATURE OF SCIENCE INSTRUMENT SECONDARY (NOSI-S)**  
TEMEL S., ŞEN Ş., ÖZCAN Ö.  
JOURNAL OF BALTIC SCIENCE EDUCATION, vol.16, no.3, pp.429-437, 2017 (SSCI)
- VI. **AN EVALUATION OF THE EFFECTS OF COMBINED HEALTH WARNINGS ON CIGARETTE PACKETS THROUGH EYE MOVEMENTS**  
GERÇEK C., ÖZCAN Ö., OCAK EREN N., ÇAKIR TURGUT E., DOĞAN N., ÇAĞILTAY K.  
Journal Of Baltic Science Education, vol.15, pp.680-692, 2016 (SSCI)
- VII. **STUDENTS' MENTAL MODELS ABOUT THE RELATIONSHIP BETWEEN FORCE AND VELOCITY CONCEPTS**  
ÖZCAN Ö., BEZEN S.  
JOURNAL OF BALTIC SCIENCE EDUCATION, vol.15, no.5, pp.630-641, 2016 (SSCI)
- VIII. **Investigating students' mental models about the nature of light in different contexts**  
ÖZCAN Ö.  
EUROPEAN JOURNAL OF PHYSICS, vol.36, no.6, 2015 (SCI-Expanded)
- IX. **Examination of the Variation in Students' Problem Solving Approaches Due to the Use of Mathematical Models in Doppler Effect**  
Didis Korhasan N., ÖZCAN Ö.  
HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION, vol.30, no.3, pp.87-101, 2015 (SSCI)
- X. **What do Pre-Service Physics Teachers Know and Think about Concept Mapping?**  
Didis N., ÖZCAN Ö., Azar A.  
EURASIA JOURNAL OF MATHEMATICS SCIENCE AND TECHNOLOGY EDUCATION, vol.10, no.2, pp.77-87, 2014 (SSCI)
- XI. **Investigation of Mental Models of Turkish Pre-Service Physics Students for the Concept of "Spin"**  
Ozcan O.  
EGITIM ARASTIRMALARI-EURASIAN JOURNAL OF EDUCATIONAL RESEARCH, vol.13, no.52, pp.21-36, 2013 (SSCI)
- XII. **PRE-SERVICE PHYSICS TEACHERS' PROBLEM SOLVING APPROACHES IN SPECIAL THEORY OF RELATIVITY**  
Ozcan O.  
HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION, no.40, pp.310-320, 2011 (SSCI)
- XIII. **JOINT ENTROPY OF THE HARMONIC OSCILLATOR WITH TIME-DEPENDENT MASS AND/OR FREQUENCY**  
AKTURK E., ÖZCAN Ö., Sever R.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.23, no.11, pp.2449-2461, 2009 (SCI-Expanded)
- XIV. **STUDENTS' CONCEPTUAL DIFFICULTIES IN QUANTUM MECHANICS: POTENTIAL WELL PROBLEMS**

Ozcan O., Didis N., Tasar M. F.

HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION, no.36, pp.169-180, 2009 (SSCI)

**XV. Time Dependence of Joint Entropy of Oscillating Quantum Systems**

ÖZCAN Ö., AKTURK E., Sever R.

INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, vol.47, no.12, pp.3207-3218, 2008 (SCI-Expanded)

**XVI. Quantum, physics from students' perspective: A qualitative study**

Didis N., Ozcan O., ABAK M.

HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION, no.34, pp.86-94, 2008 (SSCI)

## Articles Published in Other Journals

- I. **The Examination of Prospective Chemistry and Physics Teachers' Cognitive Structure Related to Quantum Numbers**  
TEMEL S., ÖZCAN Ö.  
JOURNAL OF QUALITATIVE RESEARCH IN EDUCATION-EGITIMDE NITEL ARASTIRMALAR DERGISI, vol.8, no.2, pp.649-664, 2020 (ESCI)
- II. **Investigating the High School Students' Cognitive Structures about the Light Concept through Word Association Test**  
ÖZCAN Ö., Tavukcuoglu E.  
JOURNAL OF EDUCATION AND FUTURE-EGITIM VE GELECEK DERGISI, no.13, pp.121-132, 2018 (ESCI)
- III. **EXAMINING THE STUDENTS' UNDERSTANDING LEVEL TOWARDS THE CONCEPTS OF SPECIAL THEORY OF RELATIVITY**  
ÖZCAN Ö.  
Problems of Education in the 21st Century, 2017 (ESCI)
- IV. **Pre-service physics teachers' understanding level about the "electric field in the RC circuit"**  
DİNÇER T., ÖZCAN Ö.  
New Trends and Issues Proceedings on Humanities and Social Sciences, 2017 (Peer-Reviewed Journal)
- V. **DETERMINING THE STUDENTS VIEWS TOWARDS THE LEARNING STATIONS DEVELOPED FOR THE ENVIRONMENTAL EDUCATION**  
GERÇEK C., ÖZCAN Ö.  
Problems of Education in the 21st Century, vol.2016, pp.29-36, 2016 (ESCI)
- VI. **Pre Service Physics Teachers Understanding of the Photoelectric Effect A Qualitative Study Fizik Öğretmen Adaylarının Fotoelektrik Olayı Anlamaları Nitel Çalışma**  
ÖZCAN Ö., ÇALIŞKAN S.  
akdeniz eğitim araştırmaları dergisi, vol.2012, pp.55-66, 2012 (Peer-Reviewed Journal)
- VII. **Fizik Öğretmen Adaylarının Özyeterlik İnançları Cinsiyet Sınıf Düzeyi ve Akademik Başarının Etkileri**  
ÇALIŞKAN S., SEZGİN SELÇUK G., ÖZCAN Ö.  
Kastamonu Eğitim Dergisi, vol.18, pp.449-466, 2010 (Peer-Reviewed Journal)
- VIII. **Pre service physics teachers beliefs about Computer Usage in physics lessons**  
OKTAY Ö., DİDİŞ KÖRHASAN N., ÖZCAN Ö.  
balkan physics letters, vol.16, pp.1-5, 2009 (Peer-Reviewed Journal)
- IX. **Students Comprehension of Commutation Relations in Quantum Mechanics**  
DİDİŞ KÖRHASAN N., ÖZCAN Ö.  
balkan physics letters, vol.16, pp.1-5, 2009 (Peer-Reviewed Journal)
- X. **Time Dependent Entropy of Constant Force Motion**  
ÖZCAN Ö., AKTÜRK E., SEVER R.  
turkish journal of physics, vol.2007, pp.191-196, 2007 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Investigating the High School Students' Cognitive Structures about the Work Concept**  
Tavukcuoglu E., ÖZCAN Ö.  
33rd International Physics Congress of the Turkish-Physical-Society (TPS), Bodrum, Turkey, 6 - 10 September 2017, vol.1935
- II. **Inverstigating hihg school students'xx cognitive structures about work concepts**  
TAVUKÇUOĞLU E., ÖZCAN Ö.  
Turkish Physical Society 33rd International Physics Congress, 6 - 10 September 2017
- III. **Examination the pre-service physics teachers'xxcognitive structure about the concept of "torque"**  
ÖZCAN Ö.  
ERPA International Science and Mathematics Educaiton Congresses on Education 2017, 18 - 21 May 2017
- IV. **Examination of Pre Service Physics Teachers CognitiveStructures of Electric Field**  
DİNÇER T., ÖZCAN Ö.  
Turkish Physical Society 32th International Physics Congress, Bodrum, Turkey, 6 - 09 September 2016
- V. **Pre service Physics Teachers Understanding Level aboutElectric Flux**  
DİNÇER T., ÖZCAN Ö.  
Turkish Physical Society 32th International Physics Congress, bodrum, Turkey, 6 - 09 September 2016
- VI. **Examination the pre-service physics teachers' cognitive structure about the concept of "torque"**  
ÖZCAN Ö.  
ERPA International Congresses on Education (ERPA), Budapest, Hungary, 18 - 21 May 2017, vol.37
- VII. **Investigating of students conceptual difficulties on commutation relations and expectation value problems in quantum mechanics**  
ÖZCAN Ö.  
ERPA International congresses on education, Atina, Greece, 4 - 07 June 2015
- VIII. **Examining the mental models related to sound of pre service physics teachers in different contexts**  
DİNÇER T., ÖZCAN Ö.  
ERPA International Congresses on Education, Atina, Greece, 4 - 07 June 2015
- IX. **Investigating students' conceptual difficulties on commutation relations and expectation value problems in quantum mechanics**  
ÖZCAN Ö.  
ERPA International Congresses on Education (ERPA), Athens, Greece, 4 - 07 June 2015, vol.26
- X. **Students' Mental Models of Light to Explain the Compton Effect**  
ÖZCAN Ö., GERÇEK C.  
Proceedings of 6th World Conference on Educational Sciences, Valletta, Malta, 6 - 09 February 2014, vol.191, pp.2195-2197
- XI. **What are the pre-service physics teachers' opinions about context based approach in physics lessons?**  
ÖZCAN Ö., GERÇEK C.  
7th World Conference on Educational Sciences, Athens, Greece, 5 - 07 February 2015, vol.197, pp.892-897
- XII. **Views Of Biology Teacher Candidates About Context Based Approach**  
GERÇEK C., ÖZCAN Ö.  
7th World Conference on Educational Sciences, Athens, Greece, 5 - 07 February 2015, vol.197, pp.810-814
- XIII. **Investigation Of Smoking Habits Of The Students In TT Kaplan Social Science School**  
GERÇEK C., ÖZCAN Ö.  
Proceedings of 6th World Conference on Educational Sciences, Valletta, Malta, 6 - 09 February 2014, vol.191, pp.1423-1425
- XIV. **Elektrik Konularına Yönelik Öğrenciler Tarafından Oluşturulan Metaforların Analizi**  
ÇILDIR S., ÖZCAN Ö.  
Öğretmen Eğitiminde Yeni Eğilimler Uluslararası Sempozyumu, 9 - 11 May 2013
- XV. **What are the students mental models about the spin and photon concepts in modern physics**

ÖZCAN Ö.

3rd World Conference on Educational Sciences, 3 - 05 February 2011

## Supported Projects

TEMEL S., ÖZCAN Ö., Project Supported by Higher Education Institutions, Kimya Öğretmen Adaylarının Kovalent ve İyonik Bağlar ile İlgili Zihinsel Modellerinin Araştırılması, 2016 - 2017

ÖZCAN Ö., DİNÇER T., Project Supported by Higher Education Institutions, FİZİK ÖĞRETMEN ADAYLARININ RC DEVRESİNDE ELEKTRİK ALAN HAKKINDAKİ ANLAMA DÜZEYLERİ, 2016 - 2017

ÖZCAN Ö., DİNÇER T., Project Supported by Higher Education Institutions, FİZİK ÖĞRETMEN ADAYLARININ ELEKTRİK ALAN İLE İLGİLİ BİLİŞSEL YAPILARININ İNCELENMESİ, 2016 - 2016

GERÇEK C., ÇAKIR TURGUT E., OCAK N., ÖZCAN Ö., Project Supported by Higher Education Institutions, Sigara Paketleri Üzerindeki Birleşik Uyarıların Etkisinin Değerlendirilmesi Göz Hareketleri Yoluyla Deneysel Bir İncelemesi, 2015 - 2016

ÖZCAN Ö., Project Supported by Higher Education Institutions, Fizik öğretmen adaylarının kavram haritaları üzerindeki düşünce ve bilgileri nelerdir?, 2015 - 2016

DİNÇER T., ÖZCAN Ö., Project Supported by Higher Education Institutions, FİZİK ÖĞRETMENLİĞİ ÖĞRENCİLERİNİN SES İLE İLGİLİ ZİHİNSEL MODELLERİNİN FARKLI BAĞLAMLARDA İNCELENMESİ, 2015 - 2016

ÖZCAN Ö., Project Supported by Higher Education Institutions, Fizik öğretmen adaylarının ışık ile ilgili zihinsel modellerinin farklı bağlamlardaki değişiminin araştırılması, 2014 - 2015

ÖZCAN Ö., TUBITAK Project, INVESTIGATION OF PRE SERVICE TEACHERS COGNITIVE STRUCTURES ABOUT NEWTONIAN MECHANICS ÖĞRETMEN ADAYLARININ NEWTON MEKANİĞİ KONULARINDAKİ BİLİŞSEL YAPILARININ ARAŞTIRILMASI, 2012 - 2013

## Metrics

Publication: 41

Citation (WoS): 93

Citation (Scopus): 60

H-Index (WoS): 6

H-Index (Scopus): 4