

# Prof. GÜLTEKİN ÇAKMAKCI

## Personal Information

**Email:** cakmakci@hacettepe.edu.tr

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

## Education Information

Doctorate, University of Leeds, Eğitim Fakültesi, United Kingdom 2002 - 2005

Postgraduate, University of York, Eğitim Fakültesi, United Kingdom 2000 - 2001

Undergraduate, Ankara University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey 1992 - 1996

## Foreign Languages

English, C1 Advanced

## Research Areas

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

## Academic Titles / Tasks

Professor, Hacettepe University, Eğitim Fakültesi, Eğitim Fakültesi, 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, 2010 - 2012

Lecturer, Hacettepe University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2005 - 2010

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

- I. **The Ultimate Beneficiaries of Continuing Professional Development Programs: Middle School Students' Nature of Science Views**  
ÖZER F., DOĞAN N., YALAKI Y., İREZ O. S., ÇAKMAKCI G.  
RESEARCH IN SCIENCE EDUCATION, vol.51, no.SUPPL 2, pp.757-782, 2021 (SSCI)
- II. **Teachers' Beliefs About Learning and Teaching Nature of Science: Professional Development Program**  
Kartal E. E., Dogan N., Irez S., ÇAKMAKCI G., YALAKI Y.  
EGITIM VE BILIM-EDUCATION AND SCIENCE, vol.44, no.198, pp.291-307, 2019 (SSCI)
- III. **Improving science teachers' nature of science views through an innovative continuing professional development program**  
Kartal E. E., Cobern W. W., Dogan N., Irez S., ÇAKMAKCI G., YALAKI Y.  
INTERNATIONAL JOURNAL OF STEM EDUCATION, vol.5, 2018 (SCI-Expanded)
- IV. **Promoting Pre-service Teachers' Ideas About Nature of Science Through Science-Related Media**

## Reports

ÇAKMAKCI G., YALAKI Y.

PROFESSIONAL DEVELOPMENT FOR INQUIRY-BASED SCIENCE TEACHING AND LEARNING, vol.5, pp.137-161, 2018 (SCI-Expanded)

- V. **Impact of initiatives to implement science inquiry: a comparative study of the Turkish, Israeli, Swedish and Czech science education systems**  
Heinz J., Enghag M., Stuchlikova I., ÇAKMAKCI G., Peleg R., Baram-Tsabari A.  
CULTURAL STUDIES OF SCIENCE EDUCATION, vol.12, no.3, pp.677-708, 2017 (SSCI)
- VI. **INTEGRATING ENGINEERING CONCEPTS AND PRACTICES INTO SCIENCE EDUCATION Challenges and Opportunities**  
Aydeniz M., ÇAKMAKCI G.  
SCIENCE EDUCATION: AN INTERNATIONAL COURSE COMPANION, pp.221-232, 2017 (SCI-Expanded)
- VII. **Discourse Patterns and Communicative Approaches for Teaching Nature of Science**  
Kaya G., Şardağ M., ÇAKMAKCI G., Dogan N., Irez S., YALAKI Y.  
EGITIM VE BILIM-EDUCATION AND SCIENCE, vol.41, no.185, pp.83-99, 2016 (SSCI)
- VIII. **The Influence of Documentary Films on 8th Grade Students' Views about Nature of Science**  
Kapucu M. S., ÇAKMAKCI G., AYDOĞDU C.  
EDUCATIONAL SCIENCES-THEORY & PRACTICE, vol.15, no.3, pp.797-808, 2015 (SSCI)
- IX. **Investigating students' interest in chemistry through self-generated questions**  
Demirdogen B., ÇAKMAKCI G.  
CHEMISTRY EDUCATION RESEARCH AND PRACTICE, vol.15, no.2, pp.192-206, 2014 (SCI-Expanded)
- X. **The Generalizability of Students' Interests in Biology Across Gender, Country and Religion**  
Hagay G., Baram-Tsabari A., Ametler J., ÇAKMAKCI G., Lopes B., Moreira A., Pedrosa-de-Jesus H.  
RESEARCH IN SCIENCE EDUCATION, vol.43, no.3, pp.895-919, 2013 (SSCI)
- XI. **Investigating Turkish Primary School Students' Interest in Science by Using Their Self-Generated Questions**  
ÇAKMAKCI G., SEVINDIK H., PEKTAS M., Uysal A., Kole F., Kavak G.  
RESEARCH IN SCIENCE EDUCATION, vol.42, no.3, pp.469-489, 2012 (SSCI)
- XII. **Consistency of Students' Ideas about the Concept of Rate across Different Contexts**  
BEKTAŞLI B., ÇAKMAKCI G.  
EGITIM VE BILIM-EDUCATION AND SCIENCE, vol.36, no.162, pp.273-287, 2011 (SSCI)
- XIII. **PROMOTING AN INCLUSIVE IMAGE OF SCIENTISTS AMONG STUDENTS: TOWARDS RESEARCH EVIDENCE-BASED PRACTICE**  
ÇAKMAKCI G., TOSUN O., TURGUT S., ORENLER S., SENGUL K., TOP G.  
INTERNATIONAL JOURNAL OF SCIENCE AND MATHEMATICS EDUCATION, vol.9, no.3, pp.627-655, 2011 (SSCI)
- XIV. **Designing and evaluating an evidence-informed instruction in chemical kinetics**  
ÇAKMAKCI G., AYDOĞDU C.  
CHEMISTRY EDUCATION RESEARCH AND PRACTICE, vol.12, no.1, pp.15-28, 2011 (SCI-Expanded)
- XV. **Identifying Alternative Conceptions of Chemical Kinetics among Secondary School and Undergraduate Students in Turkey**  
Çakmakci G.  
JOURNAL OF CHEMICAL EDUCATION, vol.87, no.4, pp.449-455, 2010 (SCI-Expanded)
- XVI. **Preparing Teachers as Researchers: Evaluating the Quality of Research Reports Prepared by Student Teachers**  
Çakmakci G.  
EGITIM ARASTIRMALARI-EURASIAN JOURNAL OF EDUCATIONAL RESEARCH, vol.9, no.35, pp.39-56, 2009 (SSCI)
- XVII. **Students' ideas about reaction rate and its relationship with concentration or pressure**  
Çakmakci G., LEACH J., DONNELLY J.  
INTERNATIONAL JOURNAL OF SCIENCE EDUCATION, vol.28, no.15, pp.1795-1815, 2006 (SSCI)

## Articles Published in Other Journals

- I. **Measuring Nature of Science Views of Middle School Students**  
YALAKI Y., DOĞAN N., İREZ S., DOĞAN N., ÇAKMAKCI G., KARA B. E.  
INTERNATIONAL JOURNAL OF ASSESSMENT TOOLS IN EDUCATION, vol.6, no.3, pp.461-475, 2019 (ESCI)
- II. **A five-level design for evaluating professional development programs: Teaching and learning about nature of science**  
Kartal E. E., Dogan N., İrez S., ÇAKMAKCI G., YALAKI Y.  
ISSUES IN EDUCATIONAL RESEARCH, vol.29, no.2, pp.402-426, 2019 (ESCI)
- III. **The Impact of a Professional Development Program on Science Teachers' Classroom Performance: Teaching Nature of Science**  
Tekin G., Dogan N., İrez S., YALAKI Y., ÇAKMAKCI G.  
PAMUKKALE UNIVERSİTESİ EĞİTİM FAKÜLTESİ DERGİSİ-PAMUKKALE UNIVERSITY JOURNAL OF EDUCATION, no.46, pp.307-327, 2019 (ESCI)
- IV. **Assessing Teachers' Competencies in Identifying Aspects of Nature of Science in Educational Critical Scenarios**  
İREZ O. S., HAN Ç., DOĞAN N., ÇAKMAKCI G., YALAKI Y., ERDAŞ KARTAL E.  
Science Education International, vol.29, pp.274-284, 2018 (Peer-Reviewed Journal)
- V. **Öğretmen Mesleki Gelişim Programına Genel Bir Bakış: Model, Süreç, Engel, Teori ve Uygulama**  
ÖZER F., ERDAŞ KARTAL E., DOĞAN N., ÇAKMAKCI G., İREZ O. S., YALAKI Y.  
Amasya Üniversitesi Eğitim Fakültesi Dergisi, vol.7, pp.63-97, 2018 (Peer-Reviewed Journal)
- VI. **A Contextualized Nature of Science Classroom Activity: Junk Food!**  
ÖZER F., DOĞAN N., ÇAKMAKCI G., İREZ O. S., YALAKI Y.  
Journal of Inquiry-Based Activities, vol.7, pp.93-107, 2017 (Peer-Reviewed Journal)
- VII. **Promoting Pre-service Teachers' Ideas about Nature of Science through Educational Research Apprenticeship**  
ÇAKMAKCI G.  
AUSTRALIAN JOURNAL OF TEACHER EDUCATION, vol.37, no.2, pp.114-135, 2012 (ESCI)
- VIII. **A conversation with Michael R Matthews The contribution of history and philosophy of science to science teaching and research**  
YALAKI Y., ÇAKMAKCI G.  
Eurasia Journal of Mathematics, Science & Technology Education, vol.6, pp.287-309, 2010 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Promoting pre-service teachers' ideas about nature of science through science-related media reports**  
Çakmakçı G., Yalaki Y.  
in: Professional development for inquiry-based science teaching and learning, Olia E. Tsivitanidou, Peter Gray, Eliza Rybska, Lucas Louca, Costas P. Constantinou, Editor, Springer, London/Berlin, Dordrecht, pp.137-161, 2018
- II. **SAILS Sorgulama ve Değerlendirme Üniteleri**  
Çakmakçı G., KAYA G., ŞARDAĞ M., YALAKI Y., AKKOYUNLU B.  
Eğiten Kitap, 2015
- III. **Promoting student teachers' ideas about nature of science through popular media**  
Çakmakçı G., Yalaki Y.  
NTNU, Oslo, 2012
- IV. **Proje Tabanlı Öğrenme**  
KORKMAZ H., ÇAKMAKCI G.  
in: FEN VE TEKNOLOJİ ÖĞRETİMİ, Mehmet Bahar, Editor, PEGEM-A, Ankara, 2008

## Refereed Congress / Symposium Publications in Proceedings

- I. **Galen'den Harvey'e Bilimsel Paradigma Değişimi: İçerik Temelli Bir Etkinlik Örneği**  
Erdaş Kartal E., Doğan N., Özer F., İrez O. S., Çakmakçı G., Yalaki Y.  
13. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi, Denizli, Turkey, 4 - 06 October 2018
- II. **A new evaluation model for assessing effectiveness of a large scale professional development program about nature of science**  
ERDAŞ KARTAL E., DOĞAN N., İREZ O. S., ÇAKMAKCI G., YALAKI Y., ALTINER Z. B., KÖYLÜ Z. N.  
14th International history, Philosophy, and Science Teaching (IHPST) Biennial Conference, 4 - 07 July 2017
- III. **A new evaluation model for assessing effectiveness of a large-scale continuing professional development program about nature of science. Paper presented at the annual meeting of the**  
ERDAŞ KARTAL E., DOĞAN N., İREZ O. S., ÇAKMAKCI G., YALAKI Y.  
International History, Philosophy, and Science Teaching (IHPST) Biennial Conference, Ankara, Turkey, 4 - 07 July 2017, vol.14
- IV. **Uzun süreli mesleki gelişim programının bilimin doğasının öğrenimi ve öğretimi konusundaki öğretmen inançlarına etkisi**  
ERDAŞ KARTAL E., DOĞAN N., İREZ O. S., Tekin G., ÇAKMAKCI G., YALAKI Y.  
7th International Congress of Research in Education (ULEAD), Çanakkale, Turkey, 15 - 18 April 2017
- V. **Science News Hub Public Engagement With STEM**  
ÇAKMAKCI G., YILDIZ B., KAYA G., ŞARDAĞ M., İDİN Ş., DÖNMEZ İ.  
2nd Conference on International Approaches to Scaling-up Professional Development in Maths and Science Education, 7 - 08 November 2016
- VI. **Bilimin doğası görüşleri testi BİLTEST**  
YALAKI Y., İREZ O. S., DOĞAN N., ÇAKMAKÇI G.  
Ulusal Fen Bilimleri ve Matematik Eğitimi Konferansı, Adana, Turkey, 11 - 14 September 2014
- VII. **Geniş kapsamlı bir hizmet içi eğitimi projesinin öğretmenlerin sınıf içi ölçme değerlendirme uygulamalarına etkisi**  
BALA G., YALAKI Y., İREZ O. S., DOĞAN N., ÇAKMAKÇI G.  
Ulusal Fen Bilimleri ve Matematik Eğitimi Konferansı, Adana, Turkey, 11 - 14 September 2014
- VIII. **Impact of a Large Scale Professional Development Project on Middle School Students Views of NOS**  
YALAKI Y., İREZ O. S., DOĞAN N., ÇAKMAKÇI G., BALA G., ÖZER F., GUNSEVER G.  
National Association for Research in Science Teaching Annual Conference, PITTSBURGH, United States Of America, 30 March - 02 April 2014

## Supported Projects

- ÇAKMAKCI G., TUBITAK Project, Eğitim Bilimleri Alanlarında Lisansüstü Öğrenim Gören Öğrenciler İçin Proje Danışmanlığı Eğitimi, 2017 - 2017
- ÇAKMAKCI G., YILDIZ B., KAYA G., ŞARDAĞ M., Project Supported by Higher Education Institutions, 2. stem öğretmenler konferansı ve stem & makers festexpo Türkiye 2016, 2016 - 2017
- ÇAKMAKCI G., Project Supported by Higher Education Institutions, Öğretmen Adaylarının Bilimin Doğası Hakkındaki Görüşlerini Desteklemek İçin Tarihi Olaylar Hakkındaki Kısa Videoların Kullanımı, 2016 - 2017
- ÇAKMAKCI G., Project Supported by Higher Education Institutions, Öğrencilerin biyoloji alanındaki ilgilerinin cinsiyet, ülke ve din açısından genellenebilirliği, 2016 - 2016
- ÇAKMAKCI G., Project Supported by Higher Education Institutions, Bilim Teknoloji Mühendislik ve Matematik Uygulamaları - STEM Practices, 2015 - 2016
- ÇAKMAKCI G., YILDIZ B., KAYA G., ŞARDAĞ A. G. M., Project Supported by Higher Education Institutions, 1. stem öğretmenler konferansı ve stem & makers fest/expo Türkiye 2015, 2015 - 2016
- ÇAKMAKCI G., H2020 Project, Mathematics and science for life MaScil, 2013 - 2016
- ÇAKMAKCI G., TUBITAK Project, Bilimin Doğasının Öğretimi Konusunda Öğretmenin Mesleki Gelişiminin Süreç Boyunca

Desteklenmesi BİDOMEĞ, 2012 - 2016

ÇAKMAKCI G., TUBITAK Project, Akyaka Doęa Bilim Kampı, 2008 - 2009

## **Metrics**

Publication: 39

Citation (WoS): 202

Citation (Scopus): 202

H-Index (WoS): 9

H-Index (Scopus): 9

## **Non Academic Experience**

Deniz Kuvvetleri Komutanlığı