

## Prof. EMİNE ERDEM

### Personal Information

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### Education Information

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Kimya, Turkey 1993 - 1999

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Fen Bilimleri Eğitimi, Turkey 1988 - 1990

Undergraduate, Hacettepe University, Eğitim Fakültesi, Fen Bilimleri Eğitimi Kimya Öğretmenliği, Turkey 1983 - 1988

### Foreign Languages

German, B2 Upper Intermediate

### Research Areas

Social Sciences and Humanities, Education, Education in Natural Sciences, Education in Chemistry, Chemistry, Physical Chemistry, New Technologies in Polymer Chemistry, Natural Sciences

### Academic and Administrative Experience

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

### Courses

FME600 Özel Konular, Postgraduate, 2016 - 2017

KMÖ345 Ölçme ve Değerlendirme, Undergraduate, 2016 - 2017

KMÖ101 Genel Kimya, Undergraduate, 2016 - 2017

KMÖ303 Fizikokimya, Undergraduate, 2016 - 2017

KİÖ301 Fizikokimya, Undergraduate, 2016 - 2017

FME700 Özel Konular, Doctorate, 2016 - 2017

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

- I. **The Effect of Inquiry-Based Laboratory Application on Thinking Styles of Students**  
ERDEM E., ALKAN F.  
ANTHROPOLOGIST, vol.20, pp.369-376, 2015 (SCI-Expanded)
- II. **THE EFFECT OF SELF-DIRECTED LEARNING ON THE SUCCESS, READINESS, ATTITUDES TOWARDS LABORATORY SKILLS AND ANXIETY IN LABORATORY**

ALKAN F., ERDEM E.

HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION,  
no.44, pp.15-26, 2013 (SSCI)

- III. **A STUDY ON DEVELOPING ATTITUDE SCALE TOWARDS LABORATORY SKILLS**  
ALKAN F., ERDEM E.  
HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION,  
pp.22-31, 2012 (SSCI)
- IV. **EXAMINATION OF TEACHING APPLICATIONS IN TERMS OF SCHOOL AND UNIVERSITY COOPERATION:  
CHEMISTRY EDUCATION EXAMPLE**  
ERDEM E., ERDOĞAN Ü. I.  
HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION,  
pp.167-176, 2012 (SSCI)
- V. **The effect of concept mapping on meaningful learning of atom and bonding**  
ERDEM E., YILMAZ A., ÖZYALÇIN OSKAY Ö.  
PROCEDIA SOCIAL AND BEHAVIOURAL SCIENCES, vol.1, pp.1586-1590, 2009 (SSCI)
- VI. **“A Study About The Effects of Chemistry Laboratory Applications On Students' Attitudes Towards  
Chemistry And Achievement”,**  
ÖZYALÇIN OSKAY Ö., ERDEM E., YILMAZ A.  
e-Elektronik Sosyal Bilimler Dergisi (elektronik), vol.8, no.27, pp.222-321, 2009 (SSCI)
- VII. **PRE-SERVICE CHEMISTRY TEACHERS' BELIEFS ABOUT TEACHING AND THEIR PEDAGOGICAL  
CONTENT KNOWLEDGE**  
OSKAY O. O., ERDEM E., YILMAZ A.  
HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION,  
no.36, pp.203-212, 2009 (SSCI)
- VIII. **EXAMINING STUDENTS' CONCEPT MAPPING AND PROBLEM-SOLVING BELIEFS IN GENERAL  
CHEMISTRY COURSE**  
Erdem E.  
HACETTEPE UNIVERSITESI EGITIM FAKULTESI DERGISI-HACETTEPE UNIVERSITY JOURNAL OF EDUCATION,  
no.35, pp.111-122, 2008 (SSCI)

## Articles Published in Other Journals

- I. **THE RELATIONSHIP BETWEEN SELF-EFFICACY AND ATTITUDES OF CHEMISTRY TEACHER  
CANDIDATES**  
ERDEM E.  
PROBLEMS OF EDUCATION IN THE 21ST CENTURY, vol.63, pp.62-70, 2015 (ESCI)
- II. **Self-regulated learning in constructivist approach based science laboratory practices and opinions  
on constructivist approach**  
Erdem E., Dinçol Özgür S., Bayram Z., Özyalçın Oskay Ö., Şen Ş.  
Problems of Education in the 21st Century, vol.59, pp.25-33, 2014 (ESCI)
- III. **Effect of Inquiry Based Learning Method on Students Motivation**  
Bayram Z., Özyalçın Oskay Ö., Erdem E., Dinçol Özgür S., Şen Ş.  
PROCEDIA SOCIAL AND BEHAVIOURAL SCIENCES, vol.106, pp.988-996, 2013 (Peer-Reviewed Journal)
- IV. **Determination of Preservice Chemistry Teachers Cognitive Structures as Relevant to Their  
Conceptual Understandings and Misconceptions of Greenhouse Gases and Their Effects**  
ÖZYALÇIN OSKAY Ö., TEMEL S., DİNÇOL ÖZGÜR S., ERDEM E.  
Eurasian Journal of Physics and Chemistry Education, vol.4, pp.30-55, 2012 (Peer-Reviewed Journal)
- V. **Determination of Preservice Chemistry Teachers Cognitive Structures via Flow Map Method and  
Their Knowledge Level on Greenhouse Gases and Their Effects Topic**  
ÖZYALÇIN OSKAY Ö., TEMEL S., DİNÇOL ÖZGÜR S., ERDEM E.

- Eurasian Journal of Physics and Chemistry Education, vol.4, pp.30-45, 2012 (Peer-Reviewed Journal)
- VI. **Öğrencilerin Kavram Haritaları Geliştirme Becerilerinin Farklı Sınav Türlerindeki Başarılarıyla Karşılaştırılması**  
ERDEM E., ATAV E., YILMAZ A., GÜCÜM E. B.  
Çukurova Üniversitesi Eğitim Fakültesi Dergisi, vol.2, no.29, pp.85-90, 2006 (Peer-Reviewed Journal)
- VII. **Öğrencilerin Madde Konusunu Anlama Düzeyleri Kavram Yanılgıları Fen Bilgisine Karşı Tutumları Ve Mantıksal Düşünme Düzeylerinin Araştırılması**  
ERDEM E., YILMAZ A., ATAV E., GÜCÜM E. B.  
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, vol.27, pp.74-82, 2004 (Peer-Reviewed Journal)
- VIII. **Enzimler Konusunun Anamlı Öğrenilmesinde Analogiler Oluşturmanın Etkisi**  
ATAV E., ERDEM E., YILMAZ A., GÜCÜM E. B.  
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, vol.27, pp.21-29, 2004 (Peer-Reviewed Journal)
- IX. **Kimya eğitiminde kavram yanılgıları**  
Morgil İ., ERDEM E., YILMAZ A.  
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 2003 (Peer-Reviewed Journal)
- X. **Öğrencilerin Elektrokimya Konusundaki Kavram Yanılgıları**  
YILMAZ A., ERDEM E., İNCİ FATMA m.  
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, vol.23, pp.234-243, 2002 (Peer-Reviewed Journal)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Außerschulische Lernorte (Aslo) im Chemieunterricht: Museen Als Beispiel.**  
ERDOĞAN Ü. I., DİNÇOL ÖZGÜR S., ERDEM E.  
Gesellschaft für Didaktik der Chemie und Physik, GDGP 2019, 09 September 2019 - 12 September 2020
- II. **The Relationship Between Metacognitive Awareness, Teacher Self-Efficacy and Chemistry Competency Perceptions**  
ALKAN F., ERDEM E.  
3rd Cyprus International Conference on Educational Research (CY-ICER), Nicosia, CYPRUS, 30 January - 01 February 2014, vol.143, pp.778-783
- III. **Effect of Inquiry based Learning Method on Students Motivation**  
BAYRAM Z., ÖZYALÇIN OSKAY Ö., ERDEM E., DİNÇOL ÖZGÜR S., ŞEN Ş.  
4th International Conference on New Horizons in Education, 25 - 27 June 2013
- IV. **Fen Bilgisi Öğretmen adaylarının yapılandırıcı yaklaşıma yönelik görüşleri ve epistemolojik inançlarının incelenmesi**  
ERDEM E., DİNÇOL ÖZGÜR S., BAYRAM Z., ÖZYALÇIN OSKAY Ö., ŞEN Ş.  
International Perspectives on New Aspects of Learning in Teacher Education- Building Bridges Conference, Diyarbakır, Turkey, 2 - 04 October 2013
- V. **Investigating prospective science teachers' opinions about constructivist learning approach and scientific epistemological views**  
ERDEM E., DİNÇOL ÖZGÜR S., BAYRAM Z., ÖZYALÇIN OSKAY Ö., ŞEN Ş.  
International Perspectives on New Aspects of Learning in Teacher Education- Building Bridges Conference, 2 - 04 October 2013
- VI. **The Effect of Educational Technologie on Pre Service Teachers Self Efficacy**  
ALKAN F., ERDEM E.  
3rd World Conference on Information Technology, Barcelona, Spain, 14 - 16 November 2012, vol.3, pp.873-878
- VII. **Kimya eğitiminde mikro öğretim yönteminin etkililiği ve öğrenci görüşleri**  
ERDEM E., ERDOĞAN Ü. I., ÖZYALÇIN OSKAY Ö., YILMAZ A.  
X. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi, Turkey, 27 - 30 June 2012
- VIII. **Öğrencilerin bilimsel düşünme yeteneklerinin motivasyona etkisi**  
ŞEN Ş., ERDEM E., YILMAZ A.

X. Ulusal Fen ve Matematik Eğitimi Kongresi, Niğde, Turkey, 27 - 30 June 2012, pp.185

- IX. The relationship between teacher self-efficacy and competency perceptions of chemistry teacher candidates**  
ALKAN F., ERDEM E.  
Cyprus International Conference on Educational Research (CY-ICER), CYPRUS, 8 - 11 February 2012, vol.47, pp.1927-1932
- X. Phänomenographie Eine qualitative Studie über die Wahrnehmung der Nanotechnologie**  
ALKAN F., ERDEM E.  
GDCh-Wissenschaftsforum Chemie 2011, Bremen, Germany, 4 - 07 September 2011
- XI. Determination of relationship between prospective chemistry teachers' scientific epistemological views, information commitments and online searching achievement**  
Oskay O. O., YILMAZ A., Dincol S., ERDEM E.  
3rd World Conference on Educational Sciences (WCES), İstanbul, Turkey, 3 - 07 February 2011, vol.15, pp.3484-3489
- XII. A study on developing candidate teachers' spatial visualization and graphing abilities**  
ALKAN F., ERDEM E.  
3rd World Conference on Educational Sciences (WCES), İstanbul, Turkey, 3 - 07 February 2011, vol.15, pp.3446-3450
- XIII. The effect of elective courses on candidate teachers' level of social skills**  
ALKAN F., ERDEM E.  
3rd World Conference on Educational Sciences (WCES), İstanbul, Turkey, 3 - 07 February 2011, vol.15, pp.3451-3455
- XIV. The attitudes of student teachers towards educational technologies according to their status of receiving teaching application lessons**  
ALKAN F., ERDEM E.  
2nd World Conference on Educational Sciences (WCES-2010), İstanbul, Turkey, 4 - 08 February 2010, vol.2, pp.2523-2527
- XV. Prospective chemistry teachers' learning styles and learning preferences**  
OSKAY O. O., ERDEM E., AKKOYUNLU B., YILMAZ A.  
2nd World Conference on Educational Sciences (WCES-2010), İstanbul, Turkey, 4 - 08 February 2010, vol.2, pp.1362-1367
- XVI. Kimya Öğretmen Adaylarının Eğitim Teknolojilerine Yönelik Tutumlarının ncelenmesi**  
ALKAN F., ERDEM E.  
3. Uluslararası Bilgisayar ve Öğretim Teknolojileri Sempozyumu, Trabzon, Turkey, 7 - 09 October 2009, pp.306-310
- XVII. The effect of concept mapping on meaningful learning of Atom and bonding**  
ERDEM E., YILMAZ A., OSKAY O. O.  
World Conference on Educational Sciences, Nicosia, CYPRUS, 4 - 07 February 2009, vol.1, pp.1586-1590
- XVIII. The Effect of Developing Analogies for Meaningful Learning of the Subject of Enzymes**  
ATAV E., ERDEM E., YILMAZ A., GÜCÜM E. B.  
XI. IOESE Symposium, International Organization for Science and Technology Education, 25-30 July, Lublin, Poland, Lublin, Poland, 25 - 30 July 2004, pp.71-83
- XIX. The Relationship Among the Logical Thinking Ability Attitude Towards Science and Level of Understanding the Concept of Matter of the Freshmen Students**  
YILMAZ A., ERDEM E., ATAV E., GÜCÜM E. B.  
XI. IOESE Symposium, International Organization for Science and Technology Education, 25-30 July, Lublin, Poland, Lublin, Poland, 25 - 30 July 2004, pp.237-238
- XX. The Comparison of the Different Exam Types to Evaluate the Concept Map Developing Skills**  
ERDEM E., ATAV E., YILMAZ A., GÜCÜM E. B.  
XI. IOESE Symposium, International Organization for Science and Technology Education, 25-30 July, Lublin, Poland, Lublin, Poland, 25 - 30 July 2004, pp.251-252

## Supported Projects

ERDEM E., Project Supported by Higher Education Institutions, KİMYA DERSİNDE AKILLI TAHTA UYGULAMALARININ ÖĞRENCİ MOTİVASYONUNA VE TUTUMUNA ETKİSİNİN İNCELENMESİ, 2016 - 2016

ERDEM E., Project Supported by Higher Education Institutions, İletken Poli(o-tolidin) kil nanokompozitlerin hazırlanması ve karakterizasyonu, 2015 - 2016

ERDEM E., Çiftçi Ç., Project Supported by Higher Education Institutions, 5E Öğrenme Modelinin Öğrencilerin Bilimsel Süreç Becerilerine Etkisinin İncelenmesi, 2015 - 2016

ERDEM E., Project Supported by Higher Education Institutions, FEN EĞİTİMİNDE AKILLI TAHTA UYGULAMALARINA İLİŞKİN ÖĞRETMEN GÖRÜŞLERİ, 2015 - 2015

## Metrics

Publication: 38

Citation (WoS): 36

Citation (Scopus): 41

H-Index (WoS): 4

H-Index (Scopus): 4