

## Prof. ESEN KONDAKÇI

### Personal Information

**Email:** esent@metu.edu.tr

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### Foreign Languages

English, C1 Advanced

### Research Areas

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

### Academic Titles / Tasks

Professor, Middle East Technical University, Faculty Of Education, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2016 - Continues

Associate Professor, Middle East Technical University, Faculty Of Education, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2004 - 2015

Assistant Professor, Middle East Technical University, Faculty Of Education, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2004 - 2010

Research Assistant, Middle East Technical University, Faculty Of Education, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 1996 - 2004

### Academic and Administrative Experience

Middle East Technical University, Faculty of Education, Ortaöğretim Fen Ve Matematik Alanlar Eğitimi Bölümü, 2004 - 2010

### Advising Theses

KONDAKÇI E., The nature of interplay among components of pedagogical content knowledge in reaction rate and chemical equilibrium topics of novice and experienced chemistry teachers, Doctorate, F.NUR(Student), 2017

KONDAKÇI E., Implementation of case-based instruction on electrochemistry at 11th grade level, Doctorate, A.TARKIN(Student), 2014

KONDAKÇI E., Implementation of self-regulatory instruction based on guided inquiry approach to promote students' achievement in solubility equilibrium and acids and bases, motivation, and learning strategies /, Doctorate, C.KADIOĞLU(Student), 2014

KONDAKÇI E., ÇAKIROĞLU J., Self-efficacy, learning strategies, task value and gender: predictors of 11th grade biology achievement, Postgraduate, A.Mutlu(Student), 2012

KONDAKÇI E., Development of pre-service chemistry teachers' pedagogical content knowledge for nature of science : an intervention study, Doctorate, B.Demirdöğen(Student), 2012

KONDAKÇI E., The contribution of chemistry self-efficacy and goal orientations to eleventh grade students' chemistry

achievement, Postgraduate, A.Şenay(Student), 2010

KONDAKÇI E., The effect of case based learning on tenth grade students' understanding of human reproductive system and their perceived motivation, Postgraduate, S.Saral(Student), 2008

KONDAKÇI E., Implementation of conceptual change oriented instruction using hands on activities on tenth grade students' understanding of gases concepts, Postgraduate, İ.İpek(Student), 2007

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **A Qualitative Examination of Science Teachers' Emotions, Emotion Regulation Goals and Strategies**  
Uzuntiryaki-Kondakci E., Kirbulut Z. D. , Oktay Ö., Sarıcı E.  
RESEARCH IN SCIENCE EDUCATION, 2021 (Journal Indexed in SSCI)
- II. **The role of the argumentation-based laboratory on the development of pre-service chemistry teachers' argumentation skills**  
Uzuntiryaki-Kondakci E., Tuysuz M., Sarıcı E., Soysal C., Kılınç S.  
INTERNATIONAL JOURNAL OF SCIENCE EDUCATION, vol.43, no.1, pp.30-55, 2021 (Journal Indexed in SSCI)
- III. **Implementation of self-regulatory instruction to promote students' achievement and learning strategies in the high school chemistry classroom**  
Radioglu-Akbulut C., Uzuntiryaki-Kondakci E.  
CHEMISTRY EDUCATION RESEARCH AND PRACTICE, vol.22, no.1, pp.12-29, 2021 (Journal Indexed in SCI)
- IV. **Emotion regulation as a mediator of the influence of science teacher emotions on teacher efficacy beliefs**  
Uzuntiryaki-Kondakci E., Kirbulut Z. D. , Sarıcı E., Oktay Ö.  
EDUCATIONAL STUDIES, pp.1-19, 2020 (Journal Indexed in SSCI)
- V. **Examining the mediating effect of science self-efficacy on the relationship between metavariabes and science achievement**  
Kirbulut Z. D. , Uzuntiryaki-Kondakci E.  
INTERNATIONAL JOURNAL OF SCIENCE EDUCATION, vol.41, no.8, pp.995-1014, 2019 (Journal Indexed in SSCI)
- VI. **The relationship between vicarious experience, social persuasion, physiological state, and chemistry self-efficacy: The role of mastery experience as a mediator**  
Capa-Aydin Y., Uzuntiryaki-Kondakci E., Ceylandağ R.  
PSYCHOLOGY IN THE SCHOOLS, vol.55, pp.1224-1238, 2018 (Journal Indexed in SSCI)
- VII. **The nature of the interplay among components of pedagogical content knowledge in reaction rate and chemical equilibrium topics of novice and experienced chemistry teachers**  
Akin F. N. , Uzuntiryaki-Kondakci E.  
CHEMISTRY EDUCATION RESEARCH AND PRACTICE, vol.19, no.1, pp.80-105, 2018 (Journal Indexed in SCI)
- VIII. **Implementation of case-based instruction on electrochemistry at the 11th grade level**  
Tarkin A., Uzuntiryaki-Kondakci E.  
CHEMISTRY EDUCATION RESEARCH AND PRACTICE, vol.18, no.4, pp.659-681, 2017 (Journal Indexed in SCI)
- IX. **Exploring the complexity of teaching: the interaction between teacher self-regulation and pedagogical content knowledge**  
Uzuntiryaki-Kondakci E., Demirdogen B., AKIN F. N. , Tarkin A., Aydin-Gunbatar S.  
CHEMISTRY EDUCATION RESEARCH AND PRACTICE, vol.18, no.1, pp.250-270, 2017 (Journal Indexed in SCI)
- X. **Development of a metaconceptual awareness and regulation scale**  
Kirbulut Z. D. , Uzuntiryaki-Kondakci E., Beeth M. E.  
INTERNATIONAL JOURNAL OF SCIENCE EDUCATION, vol.38, no.13, pp.2152-2173, 2016 (Journal Indexed in SSCI)
- XI. **Development and Nature of Preservice Chemistry Teachers' Pedagogical Content Knowledge for Nature of Science**  
Demirdogen B., Hanuscin D. L. , Uzuntiryaki-Kondakci E., Koseoglu F.  
RESEARCH IN SCIENCE EDUCATION, vol.46, no.4, pp.575-612, 2016 (Journal Indexed in SSCI)
- XII. **THE DEVELOPMENT OF THE META-AFFECTIVE TRAIT SCALE**

- Uzuntiryaki-Kondakci E., Kirbulut Z. D.  
PSYCHOLOGY IN THE SCHOOLS, vol.53, no.4, pp.359-374, 2016 (Journal Indexed in SSCI)
- XIII. **Closing the gap between beliefs and practice: Change of pre-service chemistry teachers' orientations during a PCK-based NOS course**  
Demirdogen B., Uzuntiryaki-Kondakci E.  
CHEMISTRY EDUCATION RESEARCH AND PRACTICE, vol.17, no.4, pp.818-841, 2016 (Journal Indexed in SCI)
- XIV. **The nature and development of interaction among components of pedagogical content knowledge in practicum**  
Aydın S., Demirdogen B., AKIN F. N. , Uzuntiryaki-Kondakci E., Tarkin A.  
TEACHING AND TEACHER EDUCATION, vol.46, pp.37-50, 2015 (Journal Indexed in SSCI)
- XV. **Predicting Chemistry Achievement through Task Value, Goal Orientations, and Self-Efficacy: A Structural Model**  
KONDAKÇI E., Şenay A.  
CROATIAN JOURNAL OF EDUCATION-HRVATSKI CASOPIS ZA ODGOJ I OBRAZOVANJE, vol.17, no.3, pp.725-753, 2015 (Journal Indexed in SSCI)
- XVI. **Predicting Critical Thinking Skills of University Students through Metacognitive Self-Regulation Skills and Chemistry Self-Efficacy**  
KONDAKÇI E., ÇAPA AYDIN Y.  
KURAM VE UYGULAMADA EGITIM BILIMLERI, vol.13, no.1, pp.666-670, 2013 (Journal Indexed in SSCI)
- XVII. **Providing a Set of Research-Based Practices to Support Preservice Teachers' Long-Term Professional Development as Learners of Science Teaching**  
Aydın S., Demirdogen B., Tarkin A., Kutucu S., EKİZ B., Akin F. N. , TÜYSÜZ M., Uzuntiryaki E.  
SCIENCE EDUCATION, vol.97, no.6, pp.903-935, 2013 (Journal Indexed in SSCI)
- XVIII. **Pre-service chemistry teachers' pedagogical content knowledge of the nature of science in the particle nature of matter**  
BEKTAŞ O., Ekiz B., Tuysuz M., Kutucu E. S. , Tarkin A., Uzuntiryaki-Kondakci E.  
CHEMISTRY EDUCATION RESEARCH AND PRACTICE, vol.14, no.2, pp.201-213, 2013 (Journal Indexed in SCI)
- XIX. **Özdüzenleyici öğrenme stratejileri ölçeğinin ÖÖSÖ geliştirilmesi ve geçerlik analizi**  
KADIOĞLU C., UZUNTIRYAKI E., ÇAPA AYDIN Y.  
Egitim Ve Bilim-Education And Science, vol.36, pp.11-23, 2011 (Journal Indexed in SSCI)
- XX. **Interplay of motivational and cognitive strategies in predicting self-efficacy and anxiety**  
Aydın Y. C. , Uzuntiryaki E., Demirdogen B.  
EDUCATIONAL PSYCHOLOGY, vol.31, no.1, pp.55-66, 2011 (Journal Indexed in SSCI)
- XXI. **Do Pre-service Chemistry Teachers Reflect their Beliefs about Constructivism in their Teaching Practices?**  
Uzuntiryaki E., BOZ Y., Kirbulut D., Bektas O.  
RESEARCH IN SCIENCE EDUCATION, vol.40, no.3, pp.403-424, 2010 (Journal Indexed in SSCI)
- XXII. **Development and Psychometric Evaluation of the High School Chemistry Self-Efficacy Scale**  
ÇAPA AYDIN Y., UZUNTIRYAKI E.  
EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT, vol.69, no.5, pp.868-880, 2009 (Journal Indexed in SCI)
- XXIII. **Development and Validation of Chemistry Self-Efficacy Scale for College Students**  
UZUNTIRYAKI E., ÇAPA AYDIN Y.  
RESEARCH IN SCIENCE EDUCATION, vol.39, no.4, pp.539-551, 2009 (Journal Indexed in SSCI)
- XXIV. **Teacher self-regulation: examining a multidimensional construct**  
Capa-Aydın Y., SUNGUR S., Uzuntiryaki E.  
EDUCATIONAL PSYCHOLOGY, vol.29, no.3, pp.345-356, 2009 (Journal Indexed in SSCI)
- XXV. **Turkish prospective chemistry teachers' beliefs about chemistry teaching**  
Boz Y., Uzuntiryaki E.  
INTERNATIONAL JOURNAL OF SCIENCE EDUCATION, vol.28, no.14, pp.1647-1667, 2006 (Journal Indexed in SSCI)
- XXVI. **Effect of conceptual change approach accompanied with concept mapping on understanding of solution concepts**

## Articles Published in Other Journals

- I. **3 x 2 Hedef Yönelimi Ölçeği'nin Türkçe'ye Uyarlanması**  
AKBULUT C., KONDAKÇI E.  
Bartın Üniversitesi Eğitim Fakültesi Dergisi, vol.8, no.3, pp.839-866, 2019 (Other Refereed National Journals)
- II. **Öğretmen adaylarının fen öğretimi özyeterliklerinin üstbilişsel öğrenme yönelimleri ve üstbilişsel özdüzenleme ile yordanması**  
KIRBULUT Z. D., KONDAKÇI E.  
İlköğretim Online, vol.16, pp.1316-1328, 2017 (Other Refereed National Journals)
- III. **Relationship between learning strategies and goal orientations: A multilevel analysis Öğrenme stratejileri ve hedef yönelimleri arasındaki ilişki: çok düzeyli veri analizi**  
Kadioglu C., Uzuntiryaki Kondakci E.  
Egitim Arastirmalari - Eurasian Journal of Educational Research, no.56, 2014 (Journal Indexed in ESCI)
- IV. **Özyeterlik kaynakları ölçeği nin Türkçe ye uyarlanması**  
ÇAPA AYDIN Y., KONDAKÇI E., TEMLİ DURMUŞ Y., TARKIN A.  
İlköğretim Online, vol.12, pp.749-758, 2013 (Other Refereed National Journals)
- V. **Investigation of pre service teachers self efficacy beliefs and attitudes toward teaching profession through canonical analysis**  
TARKIN A., UZUNTİRYAKİ E.  
Elementary Education Online, vol.11, pp.332-341, 2012 (Other Refereed National Journals)
- VI. **Exploring the sources of Turkish pre-service chemistry teachers' chemistry self-efficacy beliefs**  
Uzuntiryaki E.  
Australian Journal of Teacher Education, vol.33, no.6, pp.12-28, 2008 (Journal Indexed in ESCI)
- VII. **Turkish Pre Service Teachers Beliefs About the Importance of Teaching Chemistry**  
UZUNTİRYAKİ E., BOZ Y.  
AUSTRALIAN JOURNAL OF TEACHER EDUCATION, vol.32, 2007 (Refereed Journals of Other Institutions)
- VIII. **Learning styles and high school students chemistry achievement**  
UZUNTİRYAKİ E.  
Science Education International, vol.18, pp.25-37, 2007 (Refereed Journals of Other Institutions)
- IX. **Pre service teachers views about use of textbooks**  
UZUNTİRYAKİ E., BOZ Y.  
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, vol.31, pp.212-220, 2006 (Other Refereed National Journals)
- X. **Chemistry laboratory anxiety scale**  
AZİZOĞLU N., UZUNTİRYAKİ E.  
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, vol.30, pp.55-62, 2006 (Other Refereed National Journals)
- XI. **Effectiveness of instruction based on constructivist approach on students understanding of chemical bonding concepts**  
Uzuntiryaki E., Geban Ö.  
Science Education International, vol.15, pp.185-200, 2004 (Refereed Journals of Other Institutions)
- XII. **The relationship between gender differences and learning style preferences of pre service teachers**  
Uzuntiryaki E., Bilgin İ., Geban Ö.  
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, vol.26, pp.182-187, 2004 (Other Refereed National Journals)
- XIII. **Students misconceptions on the concept of chemical equilibrium**  
Bilgin İ., Uzuntiryaki E., Geban Ö.  
Eğitim ve Bilim, vol.28, pp.10-17, 2003 (Other Refereed National Journals)
- XIV. **Freshman students misconceptions in chemical equilibrium**  
Özdemir A., Geban Ö., Uzuntiryaki E.

## Books & Book Chapters

- I. **Öğretmen Özdüzenlemesi**  
ÇAPA AYDIN Y., KONDAKÇI E.  
in: Özdüzenleme: Öğrenmeden Öğretime Özdüzenleme Davranışlarının Gelişimi, Stratejiler ve Öneriler, Sakız, Gönül, Editor, Nobel, Ankara, pp.217-228, 2020
- II. **Öğretmen özdüzenlemesi**  
Çapa Aydın Y., Kondakçı E.  
in: Özdüzenleme: Öğrenmeden öğretime özdüzenleme davranışlarının gelişimi, stratejiler ve öneriler, Sakız G., Editor, Nobel Yayınevi, Ankara, pp.218-230, 2014

## Refereed Congress / Symposium Publications in Proceedings

- I. **Pre-service teacher self-efficacy in the context of practicum of teaching**  
Kondakçı E., Çapa Aydın Y., Kirbulut Z. D. , Boran A.  
European Association for Research on Learning and Instruction (EARLI), Aachen, Germany, 12 - 16 August 2019, pp.267-268
- II. **Contribution of science teachers' efficacy beliefs to their emotions**  
KONDAKÇI E., KIRBULUT Z. D. , OKTAY Ö., SARICI E.  
International Conference of Education, Research and Innovation (ICERI2017), 16 - 18 November 2017
- III. **Gender differences in the sources of high school students' chemistry self-efficacy beliefs**  
SARICI E., KONDAKÇI E.  
European Conference on Educational Research (ECER), 21 - 25 August 2017
- IV. **The Role of Metacognitive Guidance on Pre-service Teachers'xx Emotions During Practicum**  
KIRBULUT Z. D. , KONDAKÇI E.  
International Conference on Education in Mathematics, Science Technology, 18 - 21 May 2017
- V. **Development Pre-service Chemistry Teachers'xx Argumentation Skills in Implementing Science Writing Heuristic at Chemistry Laboratory Subject/Problem**  
SOYSAL C., SARICI E., TÜYSÜZ M., KILINÇ S., KONDAKÇI E.  
NARST 90th Annual International Conference, San-Antonio, United States Of America, 22 - 25 April 2017, pp.154
- VI. **Contribution of the Argumentation-Based Laboratory to Pre-Service Chemistry Teachers'xx Microscopic Explanations of Chemistry Concepts.**  
KILINÇ S., TÜYSÜZ M., SARICI E., SOYSAL C., KONDAKÇI E.  
NARST 90th Annual International Conference, San-Antonio, United States Of America, 22 - 25 April 2017, pp.17-18
- VII. **RELATIONSHIP BETWEEN META-LEVEL VARIABLES AND SCIENCE ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS**  
KIRBULUT Z. D. , KONDAKÇI E.  
9th Annual International Conference of Education, Research and Innovation (iCERi), Sevilla, Spain, 14 - 16 November 2016, pp.5933
- VIII. **PRE-SERVICE TEACHERS' METACOGNITIVE SCIENCE LEARNING ORIENTATIONS AND THEIR USE OF LEARNING STRATEGIES: ARE THEY RELATED?**  
KIRBULUT Z. D. , KONDAKÇI E.  
9th Annual International Conference of Education, Research and Innovation (iCERi), Sevilla, Spain, 14 - 16 November 2016, pp.5932
- IX. **Exploring Preservice Teachers Use of Self Regulatory Processes in their Instructions**  
KONDAKÇI E., DEMİRDÖĞEN B., AKIN F. N. , TARKIN A., AYDIN S.  
EARLI SIG Conference, 20 - 22 June 2016

- X. **Investigating the Role of Students Goal Orientations on their Understanding of Chemical Equilibrium Concepts**  
SARICI E., KONDAKÇI E.  
NARST, 14 - 17 April 2016
- XI. **Search of Interplay Among PCK Components The Case of Novice and Experienced Chemistry Teachers**  
AKIN F. N. , KONDAKÇI E.  
European Conference on Educational Research (ECER), 7 - 11 September 2015
- XII. **Investigating the Students Use of Self Regulatory Processes in Chemistry Classes**  
KADIOĞLU C., KONDAKÇI E.  
European Science Education Research Association (ESERA) Conference, 31 August - 04 September 2015
- XIII. **Örnek olaya dayalı kimya öğretiminin 11 sınıf öğrencilerinin tutum ve motivasyonlarına etkisinin incelenmesi**  
TARKIN A., KONDAKÇI E.  
7.Uluslararası Eğitim Araştırmaları Kongresi, 28 - 31 May 2015
- XIV. **The Relationship between Preservice Teacher Self regulation and PCK**  
TARKIN A., KONDAKÇI E., AKIN F. N. , DEMİRDÖĞEN B., AYDIN S.  
Annual meeting of the National Association for Research in Science Teaching (NARST), 11 - 14 April 2015
- XV. **Predictors of Students Meta Affective Inclinations in Chemistry Tasks**  
KONDAKÇI E., KIRBULUT Z. D.  
Annual meeting of the National Association for Research in Science Teaching (NARST), 11 - 14 April 2015

## Supported Projects

- KONDAKÇI E., ÇAPA AYDIN Y., Kirbulut Z. D. , BORAN A., Project Supported by Higher Education Institutions, Öğretmenlik Uygulaması Dersi: Öğretmen Adaylarının Algıları, 2018 - 2019
- KONDAKÇI E., Project Supported by Higher Education Institutions, KİMYA ÖĞRETMEN ADAYLARININ ÖZDÜZENLEME BECERİLERİNİN GELİŞTİRİLMESİ, 2017 - 2017
- KONDAKÇI E., Kirbulut Z. D. , Project Supported by Higher Education Institutions, Lİse Öğrencilerinin Kimya Başarılarını Yordayan Değişkenler, 2016 - 2016
- KONDAKÇI E., Project Supported by Higher Education Institutions, 3 x 2 Hedef Yönelimi Anket Skorlarının Geçerlik Çalışması: Lise Örnekleme, 2014 - 2014
- KONDAKÇI E., Project Supported by Higher Education Institutions, 3 x 2 Hedef Yönelimi Anketi'nin Türkçe'ye Uyarlanması, 2013 - 2013
- KONDAKÇI E., AKIN F. N. , Project Supported by Higher Education Institutions, DENEYİMLİ VE DENEYİMSİZ KİMYA ÖĞRETMENLERİNİN SAHİP OLDUĞU PEDAGOJİK ALAN BİLGİSİ: ÖĞRETMENLİK DENEYİMİ VE ÖĞRETMEN ÖZYETERLİĞİ ETKİSİ, 2013 - 2013
- KONDAKÇI E., Project Supported by Higher Education Institutions, Öğretmen Öz düzenlemesini Yordalayan Değişkenler., 2011 - 2011
- KONDAKÇI E., Project Supported by Higher Education Institutions, Lise Öğrencilerinin Kimya Özyeterlilik Düzeyleri Ve Kaynakları., 2010 - 2010
- KONDAKÇI E., Project Supported by Higher Education Institutions, Öğretmenlerin Ve Öğretmen Adaylarının Özyeterlilik Kaynakları Ve Yapılandırmacı Öğretime Yönelik Özyeterlilik İnançları., 2009 - 2009

## Activities in Scientific Journals

Eğitim Ve Bilim-Education And Science, Editor, 2016 - Continues

## **Scientific Refereeing**

LEARNING AND INDIVIDUAL DIFFERENCES, Journal Indexed in SSCI, May 2021

## **Citations**

Total Citations (WOS):349

h-index (WOS):11