

## **Prof. ZÜBEYDE DEMET KIRBULUT GÜNEŞ**

### **Personal Information**

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### **International Researcher IDs**

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Publons / Web Of Science ResearcherID: V-9758-2017

ScopusID: 57437165000

Yoksis Researcher ID: 35291

### **Education Information**

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2004 - 2012

Undergraduate, Gazi University, Gazi Eğitim Fakültesi, Turkey 1998 - 2003

Postgraduate, Gazi University, Gazi Eğitim Fakültesi, Turkey 1998 - 2003

### **Foreign Languages**

English, C2 Mastery

### **Dissertations**

Doctorate, The effect of metaconceptual teaching instruction on 10th grade students understanding of states of matter, self-efficacy toward chemistry, and the nature of metaconceptual processes, Middle East Technical University, Graduate School Of Natural And Applied Sciences, 2012

### **Research Areas**

Education in Natural Sciences, Education in Chemistry, Teacher Training in Science and Math. at Second. Sch. Lev.

### **Academic Titles / Tasks**

Professor, Gazi University, Gazi Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi, 2023 - Continues

Professor, Harran University, Faculty Of Education, Department Of Mathematics And Science Teaching, 2020 - 2023

Researcher, Middle Tennessee State University, Tennessee STEM Education Center, 2019 - 2020

Associate Professor, Harran University, Faculty Of Education, Department Of Basic Education, 2015 - 2020

Assistant Professor, Harran University, Faculty Of Education, Department Of Basic Education, 2013 - 2015

Research Assistant PhD, Selcuk University, Institute Of Science, 2012 - 2012

Research Assistant, Middle East Technical University, Faculty Of Education, Mathematics And Science Education, 2004 - 2012

Researcher, University of Wisconsin - Oshkosh, Curriculum and Instruction, 2007 - 2009

## Academic and Administrative Experience

Head of Department, Harran University, Faculty Of Education, Department Of Basic Education, 2018 - 2019

Ethics Committee Member, Harran University, Rectorate, 2016 - 2019

Head of Department, Harran University, Faculty Of Education, Department Of Basic Education, 2016 - 2019

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

- I. **Small Group Conversations in a POGIL-Based Class: How English Learners Engage in a Joint Knowledge Construction Process to Reach a Shared Understanding**  
Fateh S., Ayangbola O. T., Reid J. W., Zakher S. W., KIRBULUT GÜNEŞ Z. D., Phelps A. J., Malone A., Rushton G. T.  
Journal of Chemical Education, vol.101, no.3, pp.741-752, 2024 (SCI-Expanded)
- II. **Exploring social and cognitive engagement in small groups through a community of learners (CoL) lens**  
Nennig H. T., States N. E., Macrie-Shuck M., Fateh S., Gunes Z. D., Cole R., Rushton G. T., Shah L., Talanquer V.  
Chemistry Education Research and Practice, vol.24, no.3, pp.1077-1099, 2023 (SCI-Expanded)
- III. **A Qualitative Examination of Science Teachers' Emotions, Emotion Regulation Goals and Strategies**  
Uzuntiryaki-Kondakci E., Kirbulut Z. D., OKTAY Ö., Sarici E.  
Research in Science Education, vol.52, no.4, pp.1131-1155, 2022 (SSCI)
- IV. **Investigating patterns of student engagement during collaborative activities in undergraduate chemistry courses**  
Reid J. W., Kirbulut Gunes Z. D., Fateh S., Fatima A., Macrie-Shuck M., Nennig H. T., Quintanilla F., States N. E., Syed A., Cole R., et al.  
Chemistry Education Research and Practice, vol.23, no.1, pp.173-188, 2022 (SCI-Expanded)
- V. **Emotion regulation as a mediator of the influence of science teacher emotions on teacher efficacy beliefs**  
Uzuntiryaki-Kondakci E., Kirbulut Z. D., Sarici E., OKTAY Ö.  
Educational Studies, pp.1-19, 2020 (SSCI)
- VI. **Examining the mediating effect of science self-efficacy on the relationship between metavariabls and science achievement**  
Kirbulut Z. D., Uzuntiryaki-Kondakci E.  
International Journal of Science Education, vol.41, no.8, pp.995-1014, 2019 (SSCI)
- VII. **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 (SSCI)
- VIII. **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 (SSCI)
- IX. **Modelling between epistemological beliefs and constructivist learning environment**  
Çetin-Dindar A., Kirbulut Z. D., BOZ Y.  
European Journal of Teacher Education, vol.37, no.4, pp.479-496, 2014 (SSCI)
- X. **Exploring Pre-Service Science Teacher Expectations on Learning Science**  
Celik A., Bektaş O., Demirci-Celep N., Kirbulut Güneş Z. D., Cetin-Dindar A., Geban Ö.  
EGITIM VE BILIM-EDUCATION AND SCIENCE, vol.39, no.175, pp.239-255, 2014 (SSCI)
- XI. **Exploring challenges of assessing pre-service science teachers' pedagogical content knowledge (PCK)**  
Aydeniz M., Kirbulut Z. D.  
Asia-Pacific Journal of Teacher Education, vol.42, no.2, pp.147-166, 2014 (SSCI)
- XII. **Using three-tier diagnostic test to assess students' misconceptions of states of matter**  
Kirbulut Z. D., GEBAN Ö.

- Eurasia Journal of Mathematics, Science and Technology Education, vol.10, no.5, pp.509-521, 2014 (SSCI)
- XIII. **Consistency of Students' Ideas across Evaporation, Condensation, and Boiling**  
Kirbulut Z. D., Beeth M. E.  
Research in Science Education, vol.43, no.1, pp.209-232, 2013 (SSCI)
- XIV. **Investigating pre-service elementary school teachers' metacognitive science learning orientations**  
Sait Gokalp M., Demet Kirbulut Z. D.  
Anthropologist, vol.16, no.1-2, pp.177-184, 2013 (SCI-Expanded)
- XV. **Do Pre-service chemistry teachers reflect their beliefs about constructivism in their teaching practices?**  
Uzuntiryaki E., BOZ Y., Kirbulut D., BEKTAŞ O.  
Research in Science Education, vol.40, no.3, pp.403-424, 2010 (SSCI)

### Articles Published in Other Journals

- I. **Exploring the Relationship between Metavariabiles and Self-efficacy in Chemistry**  
KIRBULUT Z. D.  
EURASIAN JOURNAL OF EDUCATIONAL RESEARCH, vol.19, no.81, pp.1-20, 2019 (Scopus)
- II. **Exploring Pre-Service Elementary Science Teachers' Conceptual Understanding of Particulate Nature of Matter through Three-Tier Diagnostic Test**  
AYDENİZ M., BİLİCAN K., KIRBULUT Z. D.  
International Journal of Education in Mathematics, Science and Technology, vol.5, no.3, pp.221-234, 2017 (ESCI)
- III. **Prediciting pre-service science teachers' science teaching efficacy beliefs through their metacognitive learning orientations and metacognitive self-regulation Fen bilgisi öğretmen adaylarının fen öğretimi özyeterliklerinin üstbilişsel öğrenme yönelimleri ve üstbilişsel özdüzenleme ile yordanması**  
Kirbulut Z. D., Uzuntiryaki-Kondakçı E.  
Elementary Education Online, vol.16, no.3, pp.1316-1328, 2017 (Scopus)
- IV. **Modeling the relationship between high school students chemistry self efficacy and metacognitive awareness**  
KIRBULUT Z. D.  
International Journal of Environmental and Science Education, vol.9, no.2, pp.177-196, 2014 (Scopus)
- V. **The relationship between pre-service elementary school teachers' metacognitive science learning orientations and their use of constructivist learning environment**  
Kirbulut Z. D., Gokalp M. S.  
International Journal of Innovation in Science and Mathematics Education, vol.22, no.6, pp.1-10, 2014 (Scopus)
- VI. **Representations of fundamental chemistry concepts in relation to the particulate nature of matter**  
KIRBULUT Z. D., BEETH M. E.  
International Journal of Education in Mathematics, Science and Technology, vol.1, no.2, pp.96-106, 2013 (Peer-Reviewed Journal)
- VII. **Pre-service chemistry teachers' expectations and experiences in the school experience Course**  
Kirbulut Z. D., BOZ Y., Öztay E. S.  
Australian Journal of Teacher Education, vol.37, no.2, pp.40-57, 2012 (Scopus)

### Refereed Congress / Symposium Publications in Proceedings

- I. **8. Sınıf Öğrencilerinin Isı ve Sıcaklık Konusundaki Kavram Yanılgılarının Kavramsal Değişim Metinleri ile İyileştirilmesi**  
Çelik E., Kirbulut Güneş Z. D.  
15. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi (UFBMEK-2023) , Nevşehir, Turkey, 27 - 30 September

2023, pp.72

- II. **Bilgiyi Anlamlandırma: Öğrencilerin Madde ve Değişim Tartışma Etkinliklerindeki Söylemlerinin Anlamlandırma Epistemik Oyunu ile İncelenmesi**  
Bora E., Kırbulut Güneş Z. D.  
15. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi (UFBMEK-2023) , Nevşehir, Turkey, 27 - 30 September 2023, pp.34
- III. **Fen Bilimleri Öğretmenlerinin Fen Öğretiminde Kullandığı İletişimsel Yaklaşımlar**  
Çetinkaya U., Kırbulut Güneş Z. D.  
15. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi (UFBMEK-2023) , Kars, Turkey, 27 - 30 September 2023, pp.37
- IV. **The Nature of Facilitation in a POGIL-Based Chemistry Class**  
Kırbulut Güneş Z. D., Phelps A. J., Fateh S., Abouelyamin K., Reid J. W., Rushton G. T.  
ESERA 2023 - 15th Biennial Conference of the European Science Education Research Association, Nevşehir, Turkey, 28 August - 01 September 2023, pp.90
- V. **What professors say during collaborative tasks: Facilitation in a POGIL chemistry class**  
Fateh S., KIRBULUT Z. D., Phelps A., Reid J., Rushton G.  
National Association for Research in Science Teaching (NARST), United States Of America, 22 March 2021
- VI. **Investigating the Differences in Discourse and Argumentation amongst Students in Undergraduate Chemistry Classroom**  
KIRBULUT Z. D., FATEH S., RUSHTON G., MILICAN G., SCHIAVONE J., MEJIA J. B., PHELPS A.  
Tennessee STEM Education Research Conference, 16 - 17 January 2020
- VII. **A structural model of the relationship among meta-affect, self-efficacy, and science achievement**  
KONDAKÇI E., KIRBULUT Z. D.  
The European Association for Research on Learning and Instruction (EARLI), 12 - 16 August 2019
- VIII. **Pre-service teacher self-efficacy in the context of practicum of teaching**  
KONDAKÇI E., ÇAPA AYDIN Y., KIRBULUT Z. D., BORAN A.  
The European Association for Research on Learning and Instruction (EARLI), 12 - 16 August 2019
- IX. **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
- X. **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
- XI. **Pre Service teachers metacognitive science learning orientations and their use of learning strategies Are they related**  
KIRBULUT Z. D., KONDAKÇI E.  
The Annual International Conference of Education, Research and Innovation (ICERI2016), 14 - 16 November 2016
- XII. **Relationship between meta level variables and science achievement of secondary school students**  
KIRBULUT Z. D., KONDAKÇI E.  
The Annual International Conference of Education, Research and Innovation (ICERI2016), 14 - 16 November 2016
- XIII. **Exploring Pre service Science Teachers Conceptual Understanding of Particulate Nature of Matter through Ordered Multiple Choice Assessments**  
AYDENİZ M., BİLİCAN K., KIRBULUT Z. D.  
National Association for Research in Science Teaching (NARST), 14 - 17 April 2016
- XIV. **Variables that predict students meta affective inclinations in chemistry tasks**  
KONDAKÇI E., KIRBULUT Z. D.  
National Association for Research in Science Teaching, 11 - 14 April 2015
- XV. **Lise öğrencilerinin üstkavramsal süreçlerinin kullandıkları öğrenme stratejileri ile yordanması**  
KIRBULUT Z. D., KONDAKÇI E.  
XI. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi, Turkey, 11 - 14 September 2014
- XVI. **Investigating the relationship between meta affect variables and metacognition variables**

KIRBULUT Z. D., AYDENİZ M.

The 6th biennial meeting of the EARLI Special Interest Group 16 – Metacognition, 3 - 06 September 2014

- XVII. **Exploring the impact of argumentation on pre service elementary school teacher metacognition and self efficacy**

KIRBULUT Z. D., AYDENİZ M.

The 6th biennial meeting of the EARLI Special Interest Group 16 – Metacognition, 3 - 06 September 2014

- XVIII. **Prospective chemistry teachers' experiences of teaching practice**

Kirbulut Z. D., BEKTAŞ O.

3rd World Conference on Educational Sciences, WCES-2011, İstanbul, Turkey, 3 - 07 February 2011, vol.15, pp.3651-3655

- XIX. **Pre-service chemistry teachers' knowledge regarding laboratory equipment and their functions**

BEKTAŞ O., Tüysüz M., Kirbulut Z. D., Cetin-Dindar A.

3rd World Conference on Educational Sciences, WCES-2011, İstanbul, Turkey, 3 - 07 February 2011, vol.15, pp.510-514

- XX. **Assessing pre service chemistry teachers topic specific pedagogical content knowledge pck Preservicescience teachers pck of electrochemistry**

AYDENİZ M., KIRBULUT Z. D.

European Science Education Research Association, 5 - 07 September 2011

- XXI. **Pre-service biology, chemistry, and physics teachers' expectations in science courses**

Demirci N., Kirbulut Z. D., BEKTAŞ O., Celik A. Y., Cetin-Dindar A., Kilic Z.

2nd World Conference on Educational Sciences (WCES-2010), İstanbul, Turkey, 4 - 08 February 2010, vol.2, pp.1715-1719

## Supported Projects

Kirbulut Güneş Z. D., Rushton G., Reid J., Fateh S., Other International Funding Programs, Collaborative Research: Investigating Classroom Discourse in Active Learning Environments for Large Enrollment Chemistry Courses, 2019 - 2023

Rushton G., Güneş B., Kirbulut Güneş Z. D., Fateh S., Jiang S., Karanja S. G., Other International Funding Programs, PDConnect: A Scalable Community Approach to Improving Instruction in AP Chemistry Nationwide, 2018 - 2021

Kondakçı E., Çapa Aydın Y., Kirbulut Güneş Z. D., Boran A., Project Supported by Higher Education Institutions, Öğretmenlik Uygulaması Dersi: Öğretmen Adaylarının Algıları, 2018 - 2019

Yeşilnacer M. İ., Kirbulut Güneş Z. D., Project Supported by Higher Education Institutions, İlköğretim ve Ortaöğretim Öğrencilerinde Ambalaj Atıklarının Geri Dönüşüm Farkındalığının Yerel Yönetimler Bağlamında Araştırılması, 2018 - 2019

Kirbulut Güneş Z. D., Kondakçı E., Oktay Ö., Sarıcı E., Project Supported by Higher Education Institutions, Fen Bilimleri Öğretmenlerinin Sınıf İçi Uygulamaları Sırasındaki Duygularının İncelenmesi, 2017 - 2019

Kirbulut Güneş Z. D., Kondakçı E., Oktay Ö., Sarıcı E., Project Supported by Higher Education Institutions, Fen Bilimleri Öğretmenlerinin Duyguları ile Özyeterlik ve Özdüzenleme Becerileri Arasındaki İlişki, 2017 - 2017

Kirbulut Güneş Z. D., Kondakçı E., Project Supported by Higher Education Institutions, Öğretmenlik Uygulaması Dersinde Üstbilişsel Rehberliğin Öğretmen Adaylarının Öğretim ile İlgili Duyguları Üzerindeki Rolü, 2016 - 2017

Kondakçı E., Kirbulut Güneş Z. D., Project Supported by Higher Education Institutions, Lise Öğrencilerinin Kimya Başarılarını Yordayan Değişkenler, 2016 - 2016

Kirbulut Güneş Z. D., Kondakçı E., Project Supported by Higher Education Institutions, Fen Bilgisi Öğretmen Adaylarının Üstbilişsel Öğrenme Yönelimleri Öğrenme Stratejilerini Kullanmaları ve Fen Öğretimi Özyeterlikleri Arasındaki İlişkinin İncelenmesi, 2015 - 2016

Boz Y., Kirbulut Güneş Z. D., Dindar A. Ç., Project Supported by Higher Education Institutions, Öğretmen Adaylarının Epistemolojik İnanç ve Özyeterliliklerinin Yapılandırmacı Öğrenme Yaklaşımını Kullanmaları Üzerine Bir Modelleme Çalışması, 2011 - 2011