Res. Asst. PhD ESRA DEMİRAY

Personal Information

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Education Information

Doctorate, Middle East Technical University, Graduate School Of Social Sciences, İlköğretim, Turkey 2013 - 2019 Postgraduate, Middle East Technical University, Graduate School Of Social Sciences, İlköğretim Fen Ve Matematik Eğitimi, Turkey 2010 - 2013 Undergraduate Minor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, Turkey 2008 - 2010 Undergraduate, Middle East Technical University, Faculty Of Education, Mathematics And Science Education, Turkey 2005 - 2010

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, An Investigation of Prospective Middle School Mathematics Teachers' Argumentation, Proof, and Geometric Construction Processes in the Context of Cognitive Unity, Middle East Technical University, Graduate School Of Social Sciences, 2019

Postgraduate, An investigation of pre-service middle school mathematics teachers' achievement levels in mathematical proof and the reasons of their wrong interpretations, Orta Doğu Teknik Üniversitesi, Sosyal Bilimler Enstitüsü, İlköğretim Fen Ve Matematik Eğitimi Anabilim Dalı, 2013

Research Areas

Social Sciences and Humanities, Education, Elementary School Education, Teacher Training For Elementary Sch. Edu. in Mathematics

Academic Titles / Tasks

Research Assistant, Hacettepe University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, 2013 - Continues Research Assistant, Bülent Ecevit Üniversitesi, Ereğli Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2011 -2013

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Types of Global Argumentation Structures in Conjecture-Generation Activities Regarding Geometry** DEMİRAY E., IŞIKSAL BOSTAN M., SAYGI E. INTERNATIONAL JOURNAL OF SCIENCE AND MATHEMATICS EDUCATION, vol.20, no.4, pp.839-860, 2022 (SSCI)
- II. An Investigation of Pre-service Middle School Mathematics Teachers' Ability to Conduct Valid Proofs, Methods Used, and Reasons for Invalid Arguments DEMİRAY E., Bostan M. I. INTERNATIONAL JOURNAL OF SCIENCE AND MATHEMATICS EDUCATION, vol.15, no.1, pp.109-130, 2017 (SSCI)

Articles Published in Other Journals

- I. Pre-service Middle School Mathematics Teachers' Descriptions of Definite Integral and Indefinite Integral
 DEMIRAY E., SAYGI E.
 CUKUROVA UNIVERSITY FACULTY OF EDUCATION JOURNAL, vol.50, no.2, pp.698-720, 2021 (ESCI)

 II. Pre-service middle school mathematics teachers' evaluations of discussions: the case of proof by
 contradiction
 CONTRACTION AND ADDRESSION AND ADDRESSION ADDRESS
 - DEMİRAY E., Bostan M. I.

MATHEMATICS EDUCATION RESEARCH JOURNAL, vol.29, no.1, pp.1-23, 2017 (ESCI)

III. ÖĞRETMEN ADAYLARININ MATEMATİK ÖĞRETİMİNDETEKNOLOJİK PEDAGOJİK ALAN BİLGİLERİNİNGELİŞTİRİLMESİ KADATAC İ. DİSKİN TÜNC M. DEMİDAVE, MUMAZ N

KARATAŞ İ., PİŞKİN TUNÇ M., DEMİRAY E., YILMAZ N. Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, vol.16, pp.512-533, 2016 (Peer-Reviewed Journal)

Papers Published in Refereed Scientific Meetings

- Interpretation of graphs regarding definite integral
 DEMİRAY E., ZEYBEK N., SAYGI E.
 The European Conference on Educational Research (ECER), 3 07 September 2019
- II. Prospective Middle School Mathematics Teachers' Geometric Constructions via Compass and Straightedge

DEMİRAY E., ISIKSAL BOSTAN M.

European Conference on Educational Research (ECER), 4 - 07 September 2018

III. Prospective middle school mathematics teachers' interpretations of graphs related to integral DEMİRAY E., SAYGI E.

European Conference on Educational Research ECER, Kopenhag, Denmark, 21 - 25 August 2017

IV. The meaning of mathematical proof for prospective middle school mathematics teachers DEMİRAY E., ISIKSAL BOSTAN M.

The European Conference on Educational Research, ECER, Kopenhag, Denmark, 21 - 25 August 2017

V. Pre-service middle school mathematics teachers' interpretation of logical equivalence in proof by contrapositive

DEMİRAY E., IŞIKSAL BOSTAN M.

10th Congress of the European-Society-for-Research-in-Mathematics-Education (CERME), Dublin, Ireland, 1 - 05 February 2017, pp.139-146

VI. Ortaokul Matematik Öğretmen Adaylarının Aksine Örnek Verme Yöntemini Yorumlamaları DEMİRAY E., IŞIKSAL BOSTAN M.

3rd International Eurasian Educational Research Congress, 31 May - 03 June 2016

VII. Development of Geometric Construction Self efficacy Scale for Pre Service Middle School

Mathematics Teachers DEMİRAY E., ÇAPA AYDIN Y. The European Conference on Educational Research, 7 - 11 September 2015

Metrics

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