

## Prof. Hasan ÜNAL

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Florida Devlet Üniversitesi, Turkey 1999 - 2005

### Research Areas

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

### Academic Titles / Tasks

Professor, Yildiz Technical University, Faculty Of Education, Department Of Mathematics And Science Education, 2017 - Continues

Associate Professor, Yildiz Technical University, Faculty Of Education, Department Of Mathematics And Science Education, 2011 - 2017

Assistant Professor, Yildiz Technical University, Faculty Of Education, Department Of Mathematics And Science Education, 2010 - 2011

Assistant Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, 2007 - 2010

Lecturer, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, 2006 - 2007

Research Assistant PhD, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, 2005 - 2006

### Academic and Administrative Experience

Head of Department, Yildiz Technical University, Faculty of Education, Department of Mathematics and Science Education, 2015 - Continues

Head of Department, Yildiz Technical University, Faculty of Education, Department of Mathematics and Science Education, 2010 - Continues

BAP Scientific Commissioner, Yildiz Technical University, Faculty of Education, Department of Mathematics and Science Education, 2010 - Continues

Vice Dean, Yildiz Technical University, Faculty of Education, Department of Mathematics and Science Education, 2010 - 2016

Head of Department, Yildiz Technical University, Faculty of Education, Department of Mathematics and Science

## Advising Theses

Ünal H., Matematik Öğretmen Adaylarının Deneyimlerinin Akış Teorisi Çerçevesinde İncelenmesi, Postgraduate, A.NUR(Student), 2020

Ünal H., 2013 – 2017 yılları arasında matematik öğretiminde materyal kullanımının öğrencilerin akademik başarıları üzerine etkisi: Bir meta analiz çalışması, Postgraduate, S.DÖNMEZ(Student), 2018

Ünal H., Interdisciplinary stem education: Exploring technology and engineering integration in mathematics and science classes, Postgraduate, B.HELVACI(Student), 2018

Ünal H., Ortaokul öğrencilerinin matematik problemi çözme-kurma becerilerinin ve problem kurma ile ilgili metaforik düşüncelerinin incelenmesi, Doctorate, E.ESRA(Student), 2014

Ünal H., 19. yy. Osmanlı matematik dergi ve makalelerinden bir kesit, Postgraduate, R.NAGEHAN(Student), 2012

Ünal H., Matematiksel soyutlama ve soyutlamanın indirgenmesi, Postgraduate, M.CAN(Student), 2011

Ünal H., Sayılar teorisinin bazı konularındaki problem çözümlerinde öğrenci yaklaşımlarının incelenmesi, Postgraduate, S.ÜSTÜNŞOY(Student), 2010

## Jury Memberships

Associate Professor Exam, Associate Professor Exam, Karadeniz Teknik Üniversitesi, August, 2019

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

- I. **Using Metaphors to Investigate Pre-service Secondary Mathematics Teachers' Perceptions of Mathematics and Mathematics Teacher Concepts**  
SENER Z. T., ÜNAL H., Aydın H.  
ANTHROPOLOGIST, vol.23, pp.291-302, 2016 (SCI-Expanded)
- II. **Investigation of problem-solving and problem-posing abilities of seventh-grade students**  
ARIKAN E. E., ÜNAL H.  
Kuram ve Uygulamada Eğitim Bilimleri, vol.15, no.5, pp.1403-1416, 2015 (SSCI)
- III. **A Visual Proof for the Sum of the First n Triangular Numbers**  
Unal H.  
MATHEMATICAL INTELLIGENCER, vol.32, no.1, pp.6-7, 2010 (SCI-Expanded)
- IV. **Divergent thinking and mathematics achievement in Turkey: Findings from the programme for international student achievement (PISA-2003)**  
ÜNAL H., DEMİR İ.  
Procedia - Social and Behavioral Sciences, vol.1, no.1, pp.1767-1770, 2009 (SSCI)

## Articles Published in Other Journals

- I. **PWW: sin alpha**  
Arikan E. E., ÜNAL H.  
MATHEMATICAL GAZETTE, vol.106, no.567, pp.514, 2022 (ESCI)
- II. **Mathematical Problem Posing and Problem Solving: A Case of Turkish Students**  
Ünal H., Arikan E. E.  
Academic Journal of Psychological Studies, vol.7, no.3, pp.98-105, 2018 (Peer-Reviewed Journal)
- III. **The Metaphorical Perceptions of Students on a Teacher-Training Course towards the Concepts of "Teacher" and "Teacher Training"**

Taşpınar Şener Z., Ünal H., Bulut A. S.

European Journal of Education Studies, vol.3, no.7, pp.388-407, 2017 (Peer-Reviewed Journal)

- IV. **An investigation of eighth grade students' problem posing skills (Turkey sample).**  
ÜNAL H., Arıkan E. E.  
International Journal of Research in Education and Science (IJRES),, vol.1, no.1, pp.23-30, 2015 (Peer-Reviewed Journal)
- V. **Proof without words: The difference of consecutive integer cubes is congruent to 1 modulo 6**  
Alsina C., Nelsen R., ÜNAL H.  
College Mathematics Journal, vol.45, no.2, pp.135, 2014 (Scopus)
- VI. **Verifying Misconception in Implementation of L hospital Rule**  
Arıkan E. E., ÖZKAN E. M., ÜNAL H.  
Journal of Educational Science, vol.3, pp.21-31, 2014 (Peer-Reviewed Journal)
- VII. **Extending al-Karajis Work on Sums of Odd Powers of Integers**  
ÜNAL H.  
LOCİ, vol.2011, no.1, 2011 (Peer-Reviewed Journal)
- VIII. **PWW:T\_Tn**  
ÜNAL H.  
Mathematics and Computers Education, vol.45, no.1, 2011 (Peer-Reviewed Journal)
- IX. **Proof Without Words: Double Sum for Sine and Cosine**  
ÜNAL H.  
The College Mathematics Journal, vol.41, no.5, 2010 (Peer-Reviewed Journal)
- X. **The power of difference: Drawing auxiliary Lines**  
ÜNAL H.  
FCTM Journal, vol.5, no.1, pp.292-298, 2010 (Peer-Reviewed Journal)
- XI. **Pythagoreas Revisited**  
ÜNAL H.  
Mathematics Teaching, vol.220, no.220, pp.22-23, 2010 (Peer-Reviewed Journal)
- XII. **Proof without words: The Cosine of difference**  
ÜNAL H.  
Mathematics and Computers Education, vol.44, no.2, 2010 (Peer-Reviewed Journal)
- XIII. **Visualization Again**  
ÜNAL H.  
Mathematics Teaching, vol.217, no.217, pp.22-23, 2010 (Peer-Reviewed Journal)
- XIV. **Proof without words: Sums of octagonal numbers**  
ÜNAL H.  
Mathematics Magazine, vol.83, no.1, pp.58, 2010 (Scopus)
- XV. **Effects of students' and schools' characteristics on mathematics achievement: Findings from PISA 2006**  
DEMİR İ., ÜNAL H.  
Procedia - Social and Behavioral Sciences, vol.2, no.2, pp.3099-3103, 2010 (Peer-Reviewed Journal)
- XVI. **Every octagonal number is the differences of two squares**  
ÜNAL H.  
Mathematics Magazine, vol.82, no.3, 2009 (Scopus)
- XVII. **Proof without words: An identity of sin squared**  
ÜNAL H.  
Mathematics and Computer Education, vol.43, no.2, 2009 (Peer-Reviewed Journal)
- XVIII. **Proof without words:An Arctangent Identity**  
ÜNAL H.  
Mathematics Magazine, vol.82, no.1, 2009 (Scopus)
- XIX. **Differences in learning geometry among high and low spatial ability pre-service mathematics teachers**

- ÜNAL H., Jakubowski E., Corey D.  
International Journal of Mathematical Education in Science and Technology, vol.40, no.8, pp.997-1012, 2009 (ESCI)
- XX. **Proof without Words: Sum of an Infinite Series**  
ÜNAL H.  
The College Mathematics Journal, vol.40, no.1, 2009 (Peer-Reviewed Journal)
- XXI. **Mathematics teachers abstraction levels and multiple approaches: The case of multiplicative and divisibility structure of numbers**  
ÜNAL H.  
Korean Journal of Mathematics Education:Series D, vol.13, no.3, pp.197-216, 2009 (Peer-Reviewed Journal)
- XXII. **Problem:To divide by**  
ÜNAL H.  
Mathematics Teaching, vol.212, no.212, pp.22-23, 2009 (Peer-Reviewed Journal)
- XXIII. **PWW:An Arcsin + ArcCos Identity**  
ÜNAL H.  
Mathematics and Computers Education, vol.42, no.2, 2008 (Peer-Reviewed Journal)
- XXIV. **Proof without words : the sine of a sum**  
ÜNAL H.  
MATHEMATICAL GAZETTE, vol.92, no.525, 2008 (ESCI)
- XXV. **Pythagoras and four colors,”**  
ÜNAL H.  
Mathematics Teaching,, vol.206, no.206, pp.27-29, 2008 (Peer-Reviewed Journal)
- XXVI. **An 8th grade Geometry Problem from Japan and American Teachers Solutions**  
ÜNAL H.  
Learning and Teaching Mathematics, vol.5, no.5, pp.12-16, 2007 (Peer-Reviewed Journal)
- XXVII. **Middle and Secondary Mathematics Teachers Comparative Analysis of TIMSS Videotape Lesson Study**  
ÜNAL H.  
Tojet, vol.6, no.3, pp.61-69, 2007 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **ARCS MOTIVATION THEORY AND RATIO- PROPORTION: MATHEMATICS TEACHERS' STRATEGIES**  
GÖKCEN Ş., ÜNAL H.  
in: ADVANCED AND CONTEMPORARY STUDIES IN EDUCATIONAL SCIENCES, , Editor, Duvar Yayınları, pp.97-111, 2023
- II. **An Implementation for the Use of Mathematical Games in the Development of Secondary School Students' Spatial Abilities**  
Demir Y. D., GÖKCEN Ş., ÜNAL H.  
in: Pioneer and Contemporary Studies in Educational Sciences, , Editor, Duvar Yayınları, pp.157-175, 2023
- III. **Aritmetik ve Cebirsel Dinamikler: Öğretmen Adaylarının Yaklaşımları**  
TAŞPINAR ŞENER Z., ÜNAL H., BULUT A. S.  
in: Eğitimde Güncel Yaklaşım ve Uygulama Örnekleri Üzerine Seçme Yazılar, Hakkı Bağcı, Cihat Tatar, Editor, Pesa, Ankara, pp.1-16, 2018
- IV. **Ortaöğretim Temel Düzey MATEMATİK 11. Sınıf**  
ÜNAL H.  
Milli Eğitim Bakanlığı, Ankara, 2016
- V. **Ortaöğretim İleri Düzey MATEMATİK 11. Sınıf**  
Ünal H.  
Milli Eğitim Bakanlığı, Ankara, 2016
- VI. **10.SINIF MATEMATİK**  
Ünal H.

MEB, Ankara, 2016

**VII. OLMAK YADA OLMAMAK: OLASILIK; İŞTE BÜTÜN MESELE!**

GÜZEL N., ÜNAL H.

in: TANIMLARI VE TARİHSEL GELİŞİMLERİYLE MATEMATİKSEL KAVRAMLAR, İsmail özgür Zembat, Mehmet Fatih Özmantar , Editor, Pegem Akademi, Karanfil Sokak No:45 Kızılay Ankara, pp.709-720, 2013

**VIII. Mathematics Teachers Growing Professionally Through Distance and Distributed Learning Opportunities, Achievement Tests: Types, Interpretations and Uses, Education**

Ünal H., Jakubowski E., Corey D. L.

in: Competitive and Globalizing World Education Research Updates, Lucas E. Madsen, Editor, NOVA Science Publishers Inc. , New-York, pp.125-138, 2011

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **Pre-Service Middle School Mathematics Teachers' Beliefs, Opinions And Knowledge On The Concept Of Model**  
GÖKCEN Ş., ÜNAL H.  
International Conference on Innovation in Basic - Higher Education, 08 September 2022
- II. **İlköğretim Matematik Öğretmeni Adaylarının Çevre ve Alan İlişkisine Yönelik Tasarlanan Materyale Yönelik Görüşleri.**  
TAŞPINAR ŞENER Z., ÜNAL H., KILIÇ BULUT A. S.  
Uluslararası Alan Eğitiminde Materyal Sempozyumu, 3 - 05 May 2018
- III. **Türkiye ve Almanya'da Okutulan 5. Sınıf Ders Kitaplarındaki Soruların TIMMS Bilişsel Düzeylere Göre Sınıflandırılması**  
TAŞPINAR ŞENER Z., ÜNAL H., KILIÇ BULUT A. S.  
Ders Kitapları Uluslararası Sempozyumu, 12 - 14 April 2018
- IV. **PEDAGOJİK FORMASYON EĞİTİMİ ALAN MATEMATİK ÖĞRETMEN ADAYLARININ MESLEKLERİNE İLİŞKİN METAFORİK ALGILARI**  
TAŞPINAR ŞENER Z., ÜNAL H., AYDIN H.  
11th International Eurasian Educational Research Congress 2. Uluslararası Avrasya Eğitim Araştırmaları Kongres, Ankara, Turkey, 08 June 2015, pp.767-768
- V. **THE COMPARISON OF TWO FINNISH AND TURKISH HIGHSCHOOL MATHEMATICS TEXTBOOKS**  
TAŞPINAR ŞENER Z., arıkan e. e., ÜNAL H., ALAN M.  
INTERNATIONAL SYMPOSIUM ON CHANGES AND NEW TRENDS IN EDUCATION, Konya, Turkey, 22 November 2013, pp.240-241
- VI. **10. Sınıf Lise Matematik Ders Kitaplarının Polinomlar Konusunun Matematiksel Modelleme Açısından Değerlendirilmesi**  
ÜNAL H.  
12. MATEMATİK SEMPOZYUMU, 01 October 2013
- VII. **Potansiyel Öğretmen Kaynaklarının Karşılaştırılması: Fen-Edebiyat ve Eğitim Fakültesi Öğrencileri**  
Çeliker F., Oral K. H., Ünal H.  
1. Türk Bilgisayar ve Matematik Eğitimi Sempozyumu, Trabzon, Turkey, 20 - 22 June 2013, pp.1
- VIII. **10 Sınıf Lise Matematik Ders Kitaplarının Polinomlar Konusunun Matematiksel Modelleme Açısından Değerlendirilmesi**  
TAŞPINAR ŞENER Z., ÜNAL H.  
12. MATEMATİK SEMPOZYUMU, Turkey, 1 - 03 May 2013
- IX. **A different multiplication method from the 16th century Mathematics Book \"Tuhfat al-A\"dad li Zavi\"l Ruşd va\"l-Sadad\" by İbn Hamzat al-MAGRIBI**  
ÜNAL H.  
BSRLM, 01 September 2012
- X. **Pre service Primary School Teachers Performance on Rotation of Points and Shapes**

- ÜNAL H.  
British Society for Research into Learning Mathematics,, 01 September 2012
- XI. **Bal Peteklerine Vidinli Tevfik Paşa nın Farklı Yaklaşımı**  
ÜNAL H.  
11. Matematik Sempozyumu (Anadolu da Matematik),, 01 September 2012
- XII. **1998 ÖSS ve 2010 YGS MATEMATİK SINAV SORU SEVİYELERİNİN KARŞILAŞTIRMALI ANALİZİ**  
ÜNAL H.  
International Educational Technology Conference "IETC", 01 July 2011
- XIII. **EXPLORATION OF LOGARITHMIC AND EXPONENTIAL EQUATIONS IN 19TH CENTURY EARLY TURKISH MATHEMATICS JOURNAL**  
ÜNAL H.  
3. Uluslararası Türkiye Eğitim Araştırmaları Kongresi, 01 May 2011
- XIV. **COMPARATIVE ANALYSIS OF MATHEMATICS QUESTIONS OF 2007 AND 2008 8TH GRADE LEVEL IDENTIFICATION EXAM (OKS) WITH WEBB DOK CONCEPTUAL FRAMEWORK**  
ÜNAL H.  
3. Uluslararası Türkiye Eğitim Araştırmaları Kongresi, 01 May 2011
- XV. **COMPARISON OF QUESTION LEVELS BETWEEN TEXTBOOKS AND UNIVERSITY ENTRANCE EXAMS QUESTIONS IN THE DOMAIN OF INTEGRAL DERIVATIVE AND LIMIT**  
ÜNAL H.  
3. Uluslararası Türkiye Eğitim Araştırmaları Kongresi, 01 May 2011
- XVI. **HIGH SCHOOL STUDENTS MATHEMATICAL ABSTRACTION & REDUCING ABSTRACTION**  
ÜNAL H.  
3. Uluslararası Türkiye Eğitim Araştırmaları Kongresi, 01 May 2011
- XVII. **Geometrical and algebraic approach to multiple representations**  
ÖZKAN E. M., ÜNAL H., TEPEDELDİREN T.  
3rd World Conference on Educational Sciences, 3 - 07 February 2011, vol.15, pp.72-75
- XVIII. **Geometrical and algebraic approach to multiple representations**  
ÜNAL H.  
World Conference on Educational Sciences, 01 February 2011
- XIX. **Teachers' Professional Development and Students' Mathematics Performance: Findings from TIMSS 2007**  
ÜNAL H., DEMİR İ., Kiliç S.  
3rd World Conference on Educational Sciences (WCES), İstanbul, Turkey, 3 - 07 February 2011, vol.15, pp.3252-3257
- XX. **Teachers Co-learning through Mutual Collaboration and Students' Mathematics Performance in TIMSS 2007**  
Kiliç S., DEMİR İ., ÜNAL H.  
3rd World Conference on Educational Sciences (WCES), İstanbul, Turkey, 3 - 07 February 2011, vol.15, pp.3258-3262
- XXI. **Effects of students' and schools' characteristics on mathematics achievement: Findings from PISA 2006**  
DEMİR İ., Kiliç S., ÜNAL H.  
2nd World Conference on Educational Sciences, WCES-2010, İstanbul, Turkey, 4 - 08 February 2010, vol.2, pp.3099-3103
- XXII. **The effect of quality of educational resources on mathematics achievement: Turkish Case from PISA-2006**  
DEMİR İ., ÜNAL H., Kiliç S.  
2nd World Conference on Educational Sciences, WCES-2010, İstanbul, Turkey, 4 - 08 February 2010, vol.2, pp.1855-1859
- XXIII. **2010 SBS 8. Sınıf Matematik Sorularının Webb'in Bilginin Derinliği Modeline Göre Değerlendirilmesi**  
ÜNAL H.

9. Matematik Sempozyumu, Sergi ve Şenlikleri, 01 October 2010
- XXIV. **Mebahis-i İlmiye: İlk Türk Matematik Dergisi**  
ÜNAL H.  
9. Matematik Sempozyumu, Sergi ve Şenlikleri, 01 October 2010
- XXV. **The effect of private tutoring on performance in mathematics in Turkey: A comparison across occupational types**  
ÜNAL H., ÖZKAN E. M., MILTON S., PRICE K., CURVA F.  
2nd World Conference on Educational Sciences (WCES-2010), İstanbul, Turkey, 4 - 08 February 2010, vol.2, pp.5512-5517
- XXVI. **Misconception In Mathematics Education: The Case Of L'Hospital Rule (not presented)**  
ÖZKAN E. M., Ünal H.  
Uluslararası 5. Balkan Eğitim Ve Bilim Kongresi, Edirne, Turkey, 01 March 2009
- XXVII. **Misconception in Calculus-I: Engineering students' misconceptions in the process of finding domain of functions**  
ÖZKAN E. M., ÜNAL H.  
World Conference on Educational Sciences, Nicosia, CYPRUS, 4 - 07 February 2009, vol.1, pp.1792-1796
- XXVIII. **Misconception in Calculus Course for Engineering Students The Case of Limit**  
ÖZKAN E. M., ÜNAL H.  
International Conference on Further Education in Balkan Countries, Konya, Turkey, 23 - 25 October 2008
- XXIX. **Misconception in Calculus-I**  
ÖZKAN E. M., Ünal H.  
International Conference on Further Education in Balkan Countries, Konya, Turkey, 01 January 2008
- XXX. **Graphical Differentiation with ClassPad300Plus**  
AKAR M., Bayram M., Ünal H.  
12th Asian Technology Conference in Mathematics, 01 December 2007
- XXXI. **Influence of mathematicians in history on pre service mathematics teachers beliefs about the nature of mathematics**  
ÖZKAN E. M., Ünal H.  
5th European Summer University On The History And Epistemology In Mathematics Education (ESU-5), Prag, Czech Republic, 19 - 24 July 2007
- XXXII. **Distance Learning Made It Possible: Conceptual Change Of Practicing Mathematics Teachers In Learning And Teaching Problem Solving.**  
ÜNAL H., Corey D., Jakubowski E.  
SITE, 01 May 2005, pp.3453-3456
- XXXIII. **Promoting and Fostering Creativity in Problem Solving via Distance Learning: Harnessing Practicing Teachers' Mathematical Creativity in an Online Problem Solving Course**  
ÜNAL H., Corey D., Jakubowski E.  
SITE, 01 April 2004, vol.2004, pp.4389-4391
- XXXIV. **Mathematical Connections Behind Every Hotel-Room Door: Using Spreadsheets to Revisit the Basics of Number Theory,"**  
ÜNAL H., Clark M.  
site, 01 April 2004, pp.4382-4384
- XXXV. **A critical examination of a community college mathematics instructor's beliefs and practices**  
ÜNAL H., Jakubowski E.  
PME, 01 August 2003
- XXXVI. **Hareketli Ortamlarda Kullanılabilen Düşük Hücre Hacimli Katı-Hal Kompozit Elektrotların Hazırlanması**  
IŞILDAK İ., Ünal h.  
XIII. Ulusal Kimya Kongresi, 01 January 1999
- XXXVII. **Awakening Mathematical Curiosity**  
ÜNAL H., Fernandez M.

FCTM

**XXXVIII. Maintaining quality and rigor in an online graduate degree program**

ÜNAL H., Jakubowski E.

AMTE

**XXXIX. How series problems integrating geometric and arithmetic schemes influenced prospective secondary teachers pedagogical understanding.**

ÜNAL H., Aspinwall L., Shaw K.

PME

**XL. A technology tool to support teachers in motivational dimension of math lessons.**

ÜNAL H., Jakubowski E.

PME

**XLI. Changing cubes to squares: Visual Demonstration**

ÜNAL H., Aspinwall L.

FCTM

**XLII. A Series Problem in Geometria and Arithmetica: The Representation Schemes of Preservice Secondary Mathematics Teachers**

ÜNAL H., Aspinwall L., Shaw K.

pme

**XLIII. How effective online course activities changed a teacher's practice.**

ÜNAL H., Jakubowski E., Corey D.

PME

**XLIV. Activating Metacognition via Distance Learning: An Exploratory Study of In-Service Math Teachers' use of Metacognitive Monitoring Skills in an Online Problem Solving Course**

ÜNAL H., Corey D.

SITE, vol.2004, pp.4385-4388

**XLV. Does Mathematical Curiosity Exist? An Investigation of Practicing Mathematics Teachers' Beliefs and Reasoning on Mathematical Curiosity.**

ÜNAL H., Jakubowski E.

AMTE

**XLVI. Instructional Design of a Graduate Online Problem Solving Course**

ÜNAL H., Corey D.

Paper presented at the Ninth Annual VSU Mathematics Technology Conference

**XLVII. An examination of the teaching of Critical Reflections.**

ÜNAL H.

Paper presented at the Thirty-five Joint Meetings of the Florida Section of the Mathematical Association of America(MAA) and the Florida Two Year College Mathematics Association(FTYCMA).

**XLVIII. Relational vs Instrumental Understanding: Implicit Differential**

ÜNAL H.

Thirty-four Joint Meetings of the Florida Section of the Mathematical Association of America(MAA) and the Florida Two Year College Mathematics Association(FTYCMA)

**XLIX. Promoting and Awakenning Mathematical Creativity**

ÜNAL H., Jakubowski E.

FCTM

**L. Using Technology to teach mathematics: Results from a survey**

ÜNAL H.

Thirty-four Joint Meetings of the Florida Section of the Mathematical Association of America(MAA) and the Florida Two Year College Mathematics Association(FTYCMA).

## Supported Projects

İçen M., Ağargün A. G., Arslan M., Tdp Şube M. İ., Oruç Ş., Tezci E., Ünal H., İlhan G. O., Project Supported by Other Official Institutions, ÇOGEF 2016 Farkındayım Aldanmam, 2016 - 2016  
Ünal H., Yavuz İ., Koyuncu F., Dede Y., Project Supported by Other Official Institutions, Müfredat ve Ders Kitapları Hazırlama Projesi, 2014 - 2015  
ORUÇ Ş., ÜNAL H., GÜNDÜZ M., BAVLI B., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Dezavantajlı Konumda Olan Üstün Zekâlı Çocukların Ve Ebeveynlerinin Gelişim ve Eğitimlerinin Desteklenmesi Projesi, 2012 - 2013

## Patent

Ünal H., Ağargün A. G., SEKİZGENSEL SAYILARIN TOPLAMINI ÖĞRETEN BİR EĞİTİM ARACI, Patent, CHAPTER A Human Needs, The Invention Registration Number: 2016 14084 , Standard Registration, 2018  
Ünal H., Ağargün A. G., ARDIŞIK ÜÇ POZİTİF TAM SAYININ ÇARPIMLARININ TOPLAMINI ÖĞRETEN BİR EĞİTİM ARACI, Patent, CHAPTER A Human Needs, The Invention Registration Number: 2016 14737 , Standard Registration, 2018  
Ünal H., Ağargün A. G., MERKEZLİ ALTIGENSEL SAYILARIN TOPLAMINI ÖĞRETEN BİR EĞİTİM ARACI, Patent, CHAPTER A Human Needs, The Invention Registration Number: 2016 15295 , Standard Registration, 2018  
Ünal H., Ağargün A. G., BEŞGENSEL SAYILARIN TOPLAMINI ÖĞRETEN BİR EĞİTİM ARACI, Patent, CHAPTER A Human Needs, The Invention Registration Number: 2016 16113 , Standard Registration, 2018  
Ünal H., Ağargün A. G., İki ve üç boyutlu düşünme yeteneğini geliştiren kareler ve küplerden oluşan bir eğitim aracı, Patent, CHAPTER A Human Needs, The Invention Registration Number: TR 2014 15657 B , Standard Registration, 2017  
Ünal H., Ağargün A. G., ARDIŞIK ÜÇ DOĞAL SAYININ ÇARPIMLARININ ÜÇ İLE BÖLÜNMESİNİ ÖĞRETEN BİR EĞİTİM ARACI, Patent, CHAPTER A Human Needs, The Invention Recourse Number: 2017/21613 , Standard Registration, 2017  
Ünal H., Ağargün A. G., ARDIŞIK TAM SAYILARIN ÇARPIMININ TOPLAMINI ÖĞRETEN BİR EĞİTİM ARACI, Patent, CHAPTER A Human Needs, The Invention Registration Number: 2015 10188 , Standard Registration, 2017

## Activities in Scientific Journals

Uluslararası Ders Kitapları ve Eğitim Materyalleri Dergisi, Publication Committee Member, 2018 - Continues  
Uluslararası Alan Eğitimi Dergisi, Publication Committee Member, 2016 - Continues  
Uluslararası Sosyal ve Eğitim Bilimleri Dergisi, Committee Member, 2016 - Continues

## Scientific Refereeing

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Yıldız Technical University, Turkey, February 2018  
TUBITAK Project, 4004 - Nature Education and Science Schools, Yıldız Technical University, Turkey, February 2017  
TUBITAK Project, 4005 - Science and Society Innovative Education Practices, Yıldız Technical University, Turkey, February 2017  
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