

# Prof. DİDEM AKYÜZ

## Personal Information

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

**Web:** <https://avesis.metu.edu.tr/dakyuz>

## International Researcher IDs

ScholarID: GSSYvYwAAAAJ

ORCID: 0000-0003-3892-8077

Publons / Web Of Science ResearcherID: ABA-2584-2020

ScopusID: 55321150800

Yoksis Researcher ID: 177580

## Education Information

Doctorate, University of Central Florida, Education (Eğitim), United States Of America 2007 - 2010

Postgraduate, Hacettepe University, Fen Fakültesi, Aktüerya Bilimleri Bölümü, Turkey 2003 - 2006

Undergraduate, Ankara University, Fen Fakültesi, Matematik Bölümü, Turkey 1999 - 2003

## Dissertations

Doctorate, Supporting a Standards-Based Teaching and Learning Environment: A Case Study of an Expert Middle School Mathematics Teacher, University Of Central Florida, Education (Eğitim), 2010

Postgraduate, Faizin Raslantı Değişkeni Olması Durumunda Ödeme Dizileri, Hacettepe Üniversitesi, 2006

## Research Areas

Teacher Training in Science and Math. at Second. Sch. Lev.

## Academic Titles / Tasks

Professor, Middle East Technical University, Faculty Of Education, Mathematics And Science Education, 2022 - Continues

Associate Professor, Middle East Technical University, Faculty Of Education, İlköğretim Bölümü, 2016 - 2022

Assistant Professor, Middle East Technical University, Faculty of Education, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2012 - 2016

## Academic and Administrative Experience

Deputy Head of Department, Middle East Technical University, Faculty Of Education, Mathematics And Science Education, 2020 - 2023

Deputy Head of Department, Middle East Technical University, Faculty of Education, İlköğretim Bölümü, 2013 - 2014

## **Advancing Ineses**

- AKYÜZ D., The interaction between middle school mathematics teachers' beliefs and pedagogical content knowledge regarding rational numbers, Doctorate, A.BULUT(Student), 2021
- Akyüz D., An investigation of 8th grade students' statistical literacy through problems with and without context, Postgraduate, T.VURAL(Student), 2020
- Akyüz D., Middle school mathematics teachers' perceptions of inclusion and their use of teaching strategies in basic arithmetical operations and problems, Postgraduate, B.GÜLDEN(Student), 2019
- Akyüz D., Investigating middle school students' achievement and strategies in proportional reasoning problems, Postgraduate, G.ÖZEN(Student), 2019
- Akyüz D., Middle school students' use of problem-solving steps and their strategies in solving word problems, Postgraduate, C.SİNAN(Student), 2019
- TEKSÖZ G., AKYÜZ D., AN INVESTIGATION OF TEACHING PRISMS IN 5TH GRADES SUPPORTED BY EDUCATION FOR SUSTAINABLE DEVELOPMENT, Postgraduate, E.KANDİLLİ(Student), 2019
- AKYÜZ D., Developing eighth grade students' mathematical practices in solids through argumentation: a design-based study, Doctorate, Ş.Şahin(Student), 2018
- AKYÜZ D., Investigating preservice middle school mathematics teachers' noticing of students' mathematical thinking in the context of lesson study /, Doctorate, P.GÜNER(Student), 2017
- AKYÜZ D., The Effects of using concrete manipulative and GeoGebra on fifth grade students' achievement in quadrilaterals, Postgraduate, Ö.Dışbudak(Student), 2017
- AKYÜZ D., Investigating middle school mathematics teachers' mathematical knowledge for teaching algebra: a multiple case study, Doctorate, D.Girit(Student), 2016
- AKYÜZ D., Developing mathematical practices in a social context: A hypothetical learning trajectory to support preservice middle school mathematics teachers' learning of triangles, Doctorate, T.UYGUN(Student), 2016
- İŞIKSAL BOSTAN M., AKYÜZ D., A pre-service mathematics teacher's technological pedagogical content knowledge regarding different views of 3-D figures in geometry, Postgraduate, İ.SARALAR(Student), 2016
- AKYÜZ D., Developing mathematical practices in a social context: a hypothetical learning trajectory to support preservice middle school mathematics teachers' learning of triangles, Doctorate, T.Uygun(Student), 2015
- AKYÜZ D., The effects of dynamic geometry use on eight grade students' achievement in geometry and attitude towards geometry on triangle topic, Postgraduate, H.SAMUR(Student), 2015
- AKYÜZ D., The Effects of dynamic geometry use on eighth grade students' achievement in geometry and attitude towards geometry on triangle topic, Postgraduate, H.Samur(Student), 2015
- AKYÜZ D., İŞIKSAL BOSTAN M., The Effect of using dynamic geometry software on eight grade students' achievement in transformation geometry, geometric thinking and attitudes toward mathematics and technology, Postgraduate, M.Buğra(Student), 2014
- AKYÜZ D., The effect of using dynamic geometry software on eight grade students' achievement in transformation geometry, geometric thinking and attitudes toward mathematics and technology, Postgraduate, M.BUĞRA(Student), 2014
- ÇAKIROĞLU E., AKYÜZ D., A phenomenological study on incorporating the history of mathematics into teaching from the perspective of primary and mathematics teachers, Postgraduate, S.SÖZEN(Student), 2013
- ÇAKIROĞLU E., AKYÜZ D., Investigating the use of technology on pre-service elementary mathematics teachers' plane geometry problem solving strategies, Postgraduate, İ.KOYUNCU(Student), 2013

## **Jury Memberships**

- Doctorate, Doctorate, Orta Doğu Teknik Üniversitesi, September, 2018
- Doctorate, Doctorate, Orta Doğu Teknik Üniversitesi, July, 2018

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

- Semiotics from a Social Constructivist Perspective**  
Stephan M., AKYÜZ D.

- INTERNATIONAL JOURNAL OF SCIENCE AND MATHEMATICS EDUCATION, vol.20, no.7, pp.1499-1519, 2022 (SSCI)
- II. **Mathematical Practices of Eighth Graders about 3D Shapes in an Argumentation, Technology, and Design-Based Classroom Environment**  
Dogruer S. S., AKYÜZ D.  
INTERNATIONAL JOURNAL OF SCIENCE AND MATHEMATICS EDUCATION, vol.18, no.8, pp.1485-1505, 2020 (SSCI)
- III. **Noticing Student Mathematical Thinking Within the Context of Lesson Study**  
GÜNER P., AKYÜZ D.  
JOURNAL OF TEACHER EDUCATION, vol.71, no.5, pp.568-583, 2020 (SSCI)
- IV. **Measuring technological pedagogical content knowledge (TPACK) through performance assessment**  
AKYÜZ D.  
COMPUTERS & EDUCATION, vol.125, pp.212-225, 2018 (SCI-Expanded)
- V. **MATHEMATICAL PRACTICES IN A TECHNOLOGICAL SETTING: A DESIGN RESEARCH EXPERIMENT FOR TEACHING CIRCLE PROPERTIES**  
AKYÜZ D.  
INTERNATIONAL JOURNAL OF SCIENCE AND MATHEMATICS EDUCATION, vol.14, no.3, pp.549-573, 2016 (SSCI)
- VI. **INVESTIGATING PLANE GEOMETRY PROBLEM-SOLVING STRATEGIES OF PROSPECTIVE MATHEMATICS TEACHERS IN TECHNOLOGY AND PAPER-AND-PENCIL ENVIRONMENTS**  
Koyuncu I., AKYÜZ D., ÇAKIROĞLU E.  
INTERNATIONAL JOURNAL OF SCIENCE AND MATHEMATICS EDUCATION, vol.13, no.4, pp.837-862, 2015 (SSCI)
- VII. **Çember Özelliklerini Öğretmeyi Amaçlayan Teknoloji ve Sorgulama Tabanlı bir Sınıfta Oluşan Sosyomatematiksel Normların İncelenmesi**  
AKYÜZ D.  
Eğitim Ve Bilim-Education And Science, vol.39, pp.58-72, 2014 (SSCI)
- VIII. **An Investigation into Sociomathematical Norms in a Technology and Inquiry Based Classroom for Teaching Circle Properties**  
Akyuz D.  
EGITIM VE BILIM-EDUCATION AND SCIENCE, vol.39, no.175, pp.58-72, 2014 (SSCI)
- IX. **A Proposed Instructional Theory for Integer Addition and Subtraction**  
Stephan M., AKYÜZ D.  
JOURNAL FOR RESEARCH IN MATHEMATICS EDUCATION, vol.43, no.4, pp.428-464, 2012 (SSCI)
- X. **The Role of the Teacher in Supporting Imagery in Understanding Integers**  
AKYÜZ D., Stephan M., Dixon J. K.  
EGITIM VE BILIM-EDUCATION AND SCIENCE, vol.37, no.163, pp.268-282, 2012 (SSCI)

## Articles Published in Other Journals

- I. **Facilitating online learning environment in math classes: Teachers' views and suggestions**  
Karaca E., AKYÜZ D.  
Journal of Pedagogical Research, vol.8, no.3, pp.1-15, 2024 (Scopus)
- II. **Exploring contextual factors for pre-service teachers teaching with technology through planning, teaching, and reflecting**  
AKYÜZ D.  
INTERNATIONAL ELECTRONIC JOURNAL OF MATHEMATICS EDUCATION, vol.18, no.1, 2023 (ESCI)
- III. **Öğrencilerin Silindirin Hacmi Konusunda Geliştirdikleri Matematiksel Fikirler: Sınıf İçi Argümantasyon Modeli**  
Doğruer Şahin Ş., AKYÜZ D.  
Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi, vol.19, no.1, pp.36-64, 2022 (Peer-Reviewed Journal)
- IV. **Co-teaching practices that build autonomy for students with learning disabilities in mathematics**  
AKYÜZ D., Stephan M.  
INTERNATIONAL JOURNAL OF MATHEMATICAL EDUCATION IN SCIENCE AND TECHNOLOGY, vol.53, no.4, pp.920-

947, 2022 (ESCI)

- V. **Mathematical knowledge of two middle school mathematics teachers in planning and teaching pattern generalization**  
GİRİT D., AKYÜZ D.  
Elementary Education Online, vol.19, no.4, pp.2098-2117, 2020 (Scopus)
- VI. **Examining two middle school mathematics teachers' knowledge for teaching manipulation of algebraic expressions during lesson planning and instruction**  
Girit D., Akyüz D.  
Türk Bilgisayar ve Matematik Eğitimi Dergisi, vol.10, no.3, pp.588-616, 2019 (Peer-Reviewed Journal)
- VII. **Developing ratio tables to explore ratios**  
SOZEN OZDOGAN S., AKYÜZ D., STEPHAN M.  
Australian Mathematics Education Journal, vol.1, no.2, pp.16-21, 2019 (Peer-Reviewed Journal)
- VIII. **Ortaokul Matematik Öğretmen Adaylarının Üçgen Eşitsizliğini Toplu Argümantasyonla Kavrayışları**  
Uygun T., Akyüz D.  
İnönü Üniversitesi Eğitim Fakültesi Dergisi, vol.20, no.1, pp.27-41, 2019 (Peer-Reviewed Journal)
- IX. **Developing Subject Matter Knowledge through Arguemntation**  
UYGUN T., AKYÜZ D.  
International Journal of Research in Education and Science, vol.5, no.2, pp.532-547, 2019 (Peer-Reviewed Journal)
- X. **The Comparative Effects of Concrete Manipulatives and Dynamic Software on the Geometry Achievement of Fifth-Grade Students**  
Disbudak O., Akyüz D.  
INTERNATIONAL JOURNAL FOR TECHNOLOGY IN MATHEMATICS EDUCATION, vol.26, no.1, pp.3-20, 2019 (ESCI)
- XI. **Middle Grade Students' Evoked Concept Images of Number Line Models and Their Calculation Strategies with Integers Using These Models**  
YILMAZ A., AKYÜZ D., Stephan M.  
INTERNATIONAL JOURNAL OF EDUCATION IN MATHEMATICS SCIENCE AND TECHNOLOGY, vol.7, no.1, pp.93-115, 2019 (ESCI)
- XII. **The Evaluation of a Pre-Service Mathematics Teacher's TPACK: A Case of 3D Shapes with GeoGebra**  
Saralar I., Işıksal Bostan M., Akyüz D.  
INTERNATIONAL JOURNAL FOR TECHNOLOGY IN MATHEMATICS EDUCATION, vol.25, pp.3-21, 2018 (Peer-Reviewed Journal)
- XIII. **The Evaluation of a Pre-Service Mathematics Teacher'xxs TPACK: A Case of 3D Shapes with GeoGebra**  
SARALAR I., ISIKSAL BOSTAN M., AKYÜZ D.  
INTERNATIONAL JOURNAL OF COMPUTER ALGEBRA IN MATHEMATICS EDUCATION, vol.25, no.2, pp.3-22, 2018 (Peer-Reviewed Journal)
- XIV. **Öğretmen Adaylarının Ders İmecesı (Lesson Study) Kapsamında Matematiksel Fark Etme Nitelikleri**  
Güner P., Akyüz D.  
Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi, vol.36, pp.447-467, 2017 (Peer-Reviewed Journal)
- XV. **Ders İmecesı (Lesson Study) Mesleki Gelişim Modeli: Öğretmen Adaylarının Fark Etme Becerilerinin İncelenmesi**  
GÜNER P., AKYÜZ D.  
İlköğretim Online, vol.16, pp.428-452, 2017 (Scopus)
- XVI. **The development of a self-efficacy scale for mathematical modeling competencies**  
KOYUNCU İ., Guzeller C. O., AKYÜZ D.  
INTERNATIONAL JOURNAL OF ASSESSMENT TOOLS IN EDUCATION, vol.4, no.1, pp.19-36, 2017 (ESCI)
- XVII. **The Effects of Using Dynamic Geometry on Eighth Grade Students' Achievement and Attitude towards Triangles**  
Samur Turk H., Akyüz D.  
INTERNATIONAL JOURNAL FOR TECHNOLOGY IN MATHEMATICS EDUCATION, vol.23, pp.95-102, 2016 (Peer-Reviewed Journal)

- XVIII. **The Effects of Using Dynamic Geometry on Eighth Grade Students' Achievement and Attitude towards Triangles**  
AKYÜZ D., Akyuz D.  
INTERNATIONAL JOURNAL FOR TECHNOLOGY IN MATHEMATICS EDUCATION, vol.23, no.3, pp.95-102, 2016 (Scopus)
- XIX. **Farklı öğretim yöntemleri ve sınıf seviyesine göre öğretmen adaylarının TPAB analizi**  
AKYÜZ D.  
Türk Bilgisayar ve Matematik Eğitimi Dergisi, vol.7, pp.89-111, 2016 (Peer-Reviewed Journal)
- XX. **Solution Strategies of a Teacher Candidate Rediscovering Numbers in Base Eight**  
AKYÜZ D.  
İnönü Üniversitesi Eğitim Fakültesi Dergisi, vol.17, pp.199-216, 2016 (Peer-Reviewed Journal)
- XXI. **Algebraic Thinking in Middle School Students at Different Grades Conceptions about Generalization of Patterns**  
Girit D., Akyüz D.  
Necatibey Eğitim Fakültesi Elektronik Fen ve Matematik Eğitimi Dergisi (elektronik), vol.10, pp.242-271, 2016 (Peer-Reviewed Journal)
- XXII. **Ortaokul matematik öğretmen adaylarının üçgenler konusunda tanım oluşturma sürecindeki öğrenmeleri**  
Uygun T., AKYÜZ D.  
Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, vol.16, pp.2002-2022, 2016 (Peer-Reviewed Journal)
- XXIII. **Pre-Service Middle School Mathematics Teachers' Understanding of Students' Knowledge: Location of Decimal Numbers on a Number Line**  
GİRİT D., AKYÜZ D.  
INTERNATIONAL JOURNAL OF EDUCATION IN MATHEMATICS SCIENCE AND TECHNOLOGY, vol.4, no.2, pp.84-100, 2016 (ESCI)
- XXIV. **Improving the quality of mathematics teaching with effective planning practices**  
Akyüz D., Dixon J. K., Stephan M.  
Teacher Development, vol.17, no.1, pp.92-106, 2013 (Scopus)

## Books & Book Chapters

- I. **Patterns and Relationships Within Ratio Contexts: Students' Emerging Ideas Through Tables**  
SOZEN OZDOGAN S., AKYÜZ D., Stephan M.  
in: Mathematics as The Science of Patterns, Patrick M. Jenlink, Editor, Information Age Publishing, Inc., pp.99-125, 2022
- II. **A Phenomenological Study: Incorporating the History of Mathematics from the Perspective of Teachers**  
Sozen Ozdogan S., AKYÜZ D., ÇAKIROĞLU E.  
in: The Language of Mathematics, Patrick M. Jenlink, Editor, Rowman Littlefield, London, pp.113-142, 2020
- III. **Çocuklara Matematik Tarih ile Nasıl Öğretilebilir?**  
Akyüz D.  
in: Prof. Dr. Emine Akyüz'e Armağan Akademisyenlikte 50 YIL, , Editor, Pegem A Yayıncılık, Ankara, pp.74-77, 2018
- IV. **Teaching Integers to Students with Disabilities: Three Case Studies**  
Stephan M., Akyüz D.  
in: Exploring the Integer Addition and Subtraction Landscape, Laura Bofferding, Nicole M. Wessman-Enzinger, Editor, Springer, London/Berlin , Zug, pp.75-108, 2018

## Refereed Congress / Symposium Publications in Proceedings

- I. **The development of pre-service teachers' informal inferential reasoning: A case of a statistical reasoning learning environment**  
OLGUN B., AKYÜZ D.  
CERME13, Budapest, Hungary, 10 - 14 July 2023
- II. **Teachers' perceptions of utilizing virtual field trips for teaching STEAM**  
GÜZELLER G., AKYÜZ D.  
CERME13, Budapest, Hungary, 10 - 14 July 2023
- III. **A bridge between tools and conventions: a transition to ratio and proportion concepts after ratio table**  
SOZEN OZDOGAN S., AKYÜZ D., Stephan M.  
CERME13, Budapest, Hungary, 10 - 14 July 2023
- IV. **Argümantasyon Tabanlı Geometri Öğretimi: Öğretmen Adayının Karşılaştığı Zorluklar**  
Akyüz D.  
6. International Eurasian Educational Research Congress, Ankara, Turkey, 19 - 22 June 2019, pp.1681-1686
- V. **ORTAOKUL MATEMATİK ÖĞRETMENLERİNİN KAYNAŞTIRMA ÖĞRENCİLERİNE KULLANDIKLARI ÖĞRETİM YÖNTEM VE TEKNİKLERİ**  
Gülten B., Akyüz D.  
6. International Eurasian Educational Research Congress, Ankara, Turkey, 19 - 22 June 2019, pp.1803-1808
- VI. **Tasarım Tabanlı Araştırmanın Matematik Öğretiminde Uygulanması: Öğrenci Merkezli İçerik Geliştirme**  
Özdoğan S. S., Akyüz D.  
6. International Eurasian Educational Research Congress, Ankara, Turkey, 19 - 22 June 2019, pp.1756-1762
- VII. **Solution Strategies of Middle School Students in Proportional Reasoning Problems**  
Yılmaz G. Ö., Akyüz D.  
28. Uluslararası Eğitim Bilimleri Kongresi, Ankara, Turkey, 25 - 28 April 2019, pp.1124-1132
- VIII. **Students' Difficulties and Misconceptions in Integers**  
Doğruer Ş. Ş., Akyüz D.  
28. Uluslararası Eğitim Bilimleri Kongresi, Ankara, Turkey, 25 - 28 April 2019, pp.1097-1104
- IX. **Öğrencilerin Matematik Öğrenimini Desteklemede Başlat-Keşfet-Tartış Örneği**  
Özdoğan S. S., Akyüz D.  
28. Uluslararası Eğitim Bilimleri Kongresi, Ankara, Turkey, 25 - 28 April 2019, pp.1133-1145
- X. **Investigation of Fifth and Sixth Grade Students' Use of Strategies and Approaches in Problem Solving**  
Alkan C. S., Akyüz D.  
28. Uluslararası Eğitim Bilimleri Kongresi, Ankara, Turkey, 25 - 28 April 2019, pp.1105-1112
- XI. **The Perceptions of Middle School Mathematics Preservice Teachers about Sociomathematical Norms**  
Gülnur A., Akyüz D.  
INTERNATIONAL LEARNING TEACHING ANDEDUCATIONAL RESEARCH CONGRESS (ILTER-2018), Amasya, Turkey, 6 - 08 September 2018, pp.343-347
- XII. **Difficulties of 5th Grade Students in Drawing Nets of Prisms**  
Ece K., Akyüz D.  
INTERNATIONAL LEARNING TEACHING ANDEDUCATIONAL RESEARCH CONGRESS (ILTER-2018), Amasya, Turkey, 6 - 08 September 2018, pp.631-635
- XIII. **How Argumentation and Geogebra Support Students' Understanding of Nets of Prisms**  
Şahin Doğruer Ş., Akyüz D.  
International Learning Teaching and Educational Research Congress (ILTER-2018), Amasya, Turkey, 6 - 08 September 2018, pp.270-276
- XIV. **Determination of the Statistical Literacy Differences between Mathematics and Science Teachers**  
Karataş M. D., Akyüz D.  
ERPA International Congresses on Education 2018, İstanbul, Turkey, 28 June - 01 July 2018, pp.132-138
- XV. **Pre-service Teachers' Goals for Integrating Technology into Teaching Middle School Mathematics**

Dilberođlu M., Yılmaz A., Sevinç Ő., Akyüz D.

International Conference on Education in Mathematics, Science Technology (ICEMST), Marmaris, Turkey, 28 April - 01 May 2018, pp.163

- XVI. **Investigating the Effect of Beliefs on Prospective Teachers'xx Technological Pedagogical Content Knowledge**  
AKYÜZ D.  
Winter Global Education, Teaching Learning Conference, Tignes, France, 29 January - 02 February 2018, pp.10-18
- XVII. **Preservice Middle School Mathematics Teachers' Knowledge about Students' Mathematical Thinking Related to Perimeter and Area**  
Güner P., Akyüz D.  
International Conference on Education in Mathematics, Science Technology, Aydın, Turkey, 18 - 21 May 2017, pp.61-67
- XVIII. **Investigating Teaching Practices for Teaching Algebraic Expressions within a Multiple Case Study**  
Girit D., Akyüz D.  
International Conference on Education in Mathematics, Science Technology (ICEMST), Aydın, Turkey, 18 - 21 May 2017, vol.6, pp.31-37
- XIX. **Preservice middle school mathematics teachers' conception of auxiliary elements of triangles**  
Uygun T., Akyüz D.  
Internatiobnal Conference on Education in Mathemnatics, Science and Technology, Aydın, Turkey, 18 - 21 May 2017
- XX. **Examination of Planned and Implemented Lessons**  
Güner P., Akyüz D.  
International Conference on Mathematics and Mathematics Education, Őanlıurfa, Turkey, 11 - 13 May 2017
- XXI. **Practices that Support in-the-Moment Teacher Productive Noticing: A Case Study of an Expert Teacher**  
AKYÜZ D.  
21st Association of Mathematics Teacher Educators Conference, 9 - 11 February 2017
- XXII. **A Study on a Pre Service Mathematics Teacher s Technological Pedagogical Content Knowledge regarding Different Views of 3 D Figures in Geometry**  
saralar i., ISIKSAL BOSTAN M., AKYÜZ D.  
European Educational Research Association (ECER), Dublin, Ireland, 22 - 26 August 2016
- XXIII. **Mathematical Knowledge for Teaching of Patterns A Case Study of Middle School Mathematics Teacher**  
GİRİT D., AKYÜZ D.  
International Congress on Mathematics Education, 24 - 31 July 2016
- XXIV. **Direct or Inquiry Instruction for Students with Special Needs The Wrong Question**  
stephan m., AKYÜZ D., smith j.  
International Congress on Mathematics Education, Hamburg, Germany, 24 - 31 July 2016
- XXV. **Ders İmecesı Lesson Study Mesleki GeliŐim Modelinin Öđretmen Adaylarının Fark Etme Becerileri Üzerine Yansıması**  
Güner P., AKYÜZ D.  
Türk Bilgisayar ve Matematik Eđitimi Sempozyumu (TÜRKBİLMAT-2), Adıyaman, Turkey, 16 - 18 May 2015
- XXVI. **İlköđretim Matematik Öđretmen Adaylarının Teknolojik Pedagojik Alan Bilgisi TPAB Öđretmen Adaylarının Yıl Dađılımları ve Farklı Ders İŐleyiŐ Biçimlerine Göre TPAB Seviyelerinin İncelenmesi**  
Güner P., AKYÜZ D.  
Türk Bilgisayar ve Matematik Eđitimi Sempozyumu (TÜRKBİLMAT-2), Adıyaman, Turkey, 16 - 18 May 2015
- XXVII. **Investigating The Use of Technology on Prospective Teacher Thinking Preferences Comparing Solutions of Geometry Problems with and without Technology**  
Akyüz D.  
International Conference on Education in Mathematics, Science & Technology, Antalya, Turkey, 23 - 26 April 2015, pp.279-289

- XXVIII. **Preservice Elementary Teachers Conception of Multiplication on Whole Numbers**  
Uygun T., AKYÜZ D.  
International Society of Educational Research Conference, Kapadokya, Turkey, 29 October - 02 November 2014, pp.57
- XXIX. **Preservice Elementary Teachers Knowledge Of Addition And Subraction Problem Types And Strategies**  
Uygun T., AKYÜZ D.  
International Society of Educational Research Conference, Kapadokya, Turkey, 29 October - 02 November 2014, pp.55
- XXX. **An Investigation of Preservice Elementary Mathematics Teachers Content Knowledge about Measures of Central Tendency**  
Uygun T., AKYÜZ D.  
International Society of Educational Research Conference, Kapadokya, Turkey, 29 October - 02 November 2014, pp.19
- XXXI. **Ortaokul 7 Sınıf Öğrencilerinin Sayı Doğrusu Modellerinin İncelenmesi**  
Girit D., AKYÜZ D.  
11. Ulusal Fen Bilimleri ve Matematik Eğitim Kongresi, Adana, Turkey, 11 - 14 September 2014, pp.452-453
- XXXII. **İlköğretim Matematik Öğretmen Adaylarının Geometri Problem Çözmede Biliş Üstbiliş Süreçlerinin İncelenmesi**  
Girit D., AKYÜZ D.  
11. Ulusal Fen Bilimleri ve Matematik Eğitim Kongresi, Adana, Turkey, 11 - 14 September 2014, pp.22-23
- XXXIII. **Dinamik Geometri Yazılımı Kullanımının Sekizinci Sınıf Öğrencilerinin Dönüşüm Geometrisi Konusundaki Başarısı Üzerine Etkisi**  
Girit D., AKYÜZ D.  
11. Ulusal Fen Bilimleri ve Matematik Eğitim Kongresi, Adana, Turkey, 11 - 14 September 2014, pp.816
- XXXIV. **Farklı Sınıf Seviyelerindeki Ortaokul Öğrencilerinin Örüntülerden Genelleme Stratejileri**  
Girit D., AKYÜZ D.  
11. Ulusal Fen Bilimleri ve Matematik Eğitim Kongresi, Adana, Turkey, 11 - 14 September 2014, pp.634-635
- XXXV. **İlköğretim Matematik Öğretmeni Adaylarının Öğrencilerin Kesir Ondalık Gösterim ve Yüzde Kavramlarının İlişkisi Hakkındaki Bilgilerine Dair Düşünceleri ve Önerileri**  
Girit D., AKYÜZ D.  
13. Matematik Sempozyumu Anadolu'da Matematik (MATDER), Karabük, Turkey, 15 - 17 May 2014, pp.330-335
- XXXVI. **The Effect of Visual and Non Visual Thinking Preferences on Students Use of Dynamic Software Two Preservice Teachers Problem Solving Strategies**  
Girit D., AKYÜZ D.  
European Educational Research Association (ECER), İstanbul, Turkey, 10 - 13 September 2013
- XXXVII. **Students Conceptions About Decimals And Connection With Fractions**  
Girit D., AKYÜZ D.  
European Educational Research Association (ECER), İstanbul, Turkey, 10 - 13 September 2013
- XXXVIII. **An Instructional Design Collaborative in One Middle School Task Design in Mathematics Education**  
Michelle S., AKYÜZ D.  
Proceedings of ICMI Study 22, Oxford, United Kingdom, 22 - 26 July 2013, pp.511-520
- XXXIX. **Preservice Teacher s Reflective Practice Guide For Learning About Teaching**  
Ayan R., AKYÜZ D., Işıksal M., ÇAKIROĞLU E.  
Eighth Congress of European Research in Mathematics Education, Manavgat, Turkey, 6 - 10 February 2013
- XL. **Öğretmen Adaylarının Matematik Öğretimine Yönelik Kavrayışlarının Gelişimi Üzerine Bir Özel Durum Çalışması**  
Işıksal M., AKYÜZ D., ÇAKIROĞLU E., Ayan R.  
11. Matematik Sempozyumu Anadolu'da Matematik (MATDER), Samsun, Turkey, 19 - 21 September 2012, pp.175-176
- XLI. **Supporting Teachers Development of Technology Based Lessons for Algebra and Geometry**



AKYÜZ D., Dixon J., Safi F., Coşkun Ş.

Applied Education Congress (Uygulamalı Eğitim Kongresi), Ankara, Turkey, 13 - 15 September 2012, pp.188-189

- XLII. **Practices of an Expert Mathematics Teacher in Small Groups**  
AKYÜZ D.  
Proceedings of 37th Annual Conference of the Association for Teacher Education in Europe, Eskişehir, Turkey, 25 - 29 August 2012, pp.48-59
- XLIII. **Ortaokul Öğrencilerinin Tamsayılar Konusundaki Çözüm Stratejileri**  
AKYÜZ D.  
X. Ulusal Fen Bilimleri Ve Matematik Eğitim Kongresi (UFBMEK), Niğde, Turkey, 27 - 30 June 2012, pp.348
- XLIV. **Developing Techno Pedagogical Skills in Preservice Elementary Mathematics Teachers**  
BALGALMIŞ E., ÇAKIROĞLU E., AKYÜZ D., Kathryn S.  
Society for Information Technology & Teacher Education International Conference, Austin, United States Of America, 5 - 09 March 2012, pp.2235-2240
- XLV. **Using Pictures in Geogebra with Everyday Context to Support Teaching and Learning Algebra**  
AKYÜZ D.  
58th Annual Conference of the Florida Council of Teachers of Mathematics (FCTM), Orlando, United States Of America, 30 September - 02 October 2010
- XLVI. **Developing the Concept of Integers in the Context of Finance**  
Stephan M., AKYÜZ D.  
Eighty-eighth Annual Meeting of National Council of Teachers of Mathematics (NCTM), San Diego, United States Of America, 21 - 24 April 2010
- XLVII. **Conducting Design Research with Teachers Artifacts and Practices that Support Teacher Engagement**  
Stephan M., AKYÜZ D., McManus G., Smith J., Dickey A.  
Educational Design Research Conference, Athens, Greece, 26 - 27 March 2010
- XLVIII. **Preservice Teachers Understanding of Continuity**  
Coşkun Ş., AKYÜZ D.  
14th Annual Conference of the Association of Mathematics Teacher Educators (AMTE), Irvine, United Kingdom, 28 - 30 January 2010
- XLIX. **The Effect of Using Calculator in Eight Grade Turkish Mathematics Students Results from the Trends in International Mathematics and Science Study**  
AKYÜZ D., Coşkun Ş.  
Florida Educational Research Association's (FERA) Annual Meeting, Orlando, United States Of America, 18 - 20 November 2009
- L. **Supporting Teachers as They Develop Technology based Lessons for Geometry Instruction**  
AKYÜZ D., Dixon J.  
Conference of Florida Association of Teacher Educators, Daytona Beach, United States Of America, 9 - 10 October 2009
- LI. **Developing Meaning and Understanding through Technology An Illustration Using Algebra II Activities**  
AKYÜZ D.  
57th Annual Conference of the Florida Council of Teachers of Mathematics (FCTM), West Palm Beach, United States Of America, 1 - 03 October 2009
- LII. **An investigation into two preservice teachers use of different representations in solving a pattern task**  
AKYÜZ D., Coşkun Ş., Hacıömeroğlu E. S.  
Proceedings of the 31st annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PMENA), Atlanta, United States Of America, 23 - 26 September 2009, pp.1261-1265
- LIII. **Developing Algebraic Thinking through Multiple Representations When a Symbolic Answer Is Not Enough**  
AKYÜZ D., Andreasen J., Cristwell P.

Eighty-Seventh Annual Meeting of National Council of Teachers of Mathematics (NCTM), Washington, Kiribati, 22 - 25 April 2009

**LIV. Diagnosis and Remediation of Common Misconceptions about Linear and Quadratic Equations**

AKYÜZ D.

56th Annual Conference of the Florida Council of Teachers of Mathematics (FCTM), Jacksonville, United States Of America, 16 - 18 October 2008

## Supported Projects

Çakiroğlu E., Akyüz D., Işıkbal Bostan M., İşler Baykal I., Sevinç Ş., Slavíčková M., H2020 Project, Enhancement of research excellence in Mathematics Teacher Knowledge (MaTeK), 2021 - 2023

AKYÜZ D., Project Supported by Higher Education Institutions, Geometri'nin Argümantasyona Dayalı bir Teknoloji Kullanımı ile Öğretilmesi, 2018 - 2019

AKYÜZ D., Project Supported by Higher Education Institutions, Matematik Öğretmen Adaylarının Geometri Öğretimini Destekleyen Teknoloji Tabanlı Öğretim İçeriklerinin Geliştirilmesi, 2016 - 2016

AKYÜZ D., Project Supported by Higher Education Institutions, Öğretmen Adaylarının Somut Materyal Ve Teknoloji Kullanarak Problem Çözme Stratejileri, 2012 - 2014

## Scientific Refereeing

JOURNAL OF MATHEMATICS TEACHER EDUCATION, Journal Indexed in SSCI, December 2019

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2018

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2018

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2018

## Tasks In Event Organizations

Akyüz D., Vth International Eurasian Educational Research Congress, Bilimsel Kongre veya Sempozyum Organizasyonu, Scientific Congress, Antalya, Turkey, Mayıs 2018

## Metrics

Publication: 96

Citation (WoS): 231

Citation (Scopus): 205

H-Index (WoS): 7

H-Index (Scopus): 8

## Invited Talks

Geogebra, Seminar, Ankara Üniversitesi Geliştirme Vakfı Okulları, Turkey, September 2018

## Non Academic Experience

University of Central Florida  
Milli Eğitim Vakfı Lisesi  
Jale Tezer Dersanesi