

HAKAN AKÇAY

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Learning Knowledge

Doctorate 2002 - 2007	The University Of Iowa, College Of Education, Fen Bilgisi Eğitimi, United States Of America
Post Graduate 2000 - 2002	Missouri Üniversitesi-Columbia, College Of Education, Fen Bilgisi Eğitimi, United States Of America
Under Graduate 1994 - 1998	Gazi Üniversitesi, Eğitim Fakültesi, İlköğretim/ Fen Bilgisi Eğitimi, Turkey

Dissertations

Doctorate, The impact of a Science, Technology and Society (STS)/ constructivist learning approach on the beliefs and attitudes of preservice science teachers, The University Of Iowa, College Of Education, Fen Bilgisi Eğitimi, 2007

Academic Titles / Tasks

Associate Professor 2012 - Continues	Yıldız Teknik Üniversitesi, Faculty of Education, Matematik Ve Fen Bilimleri Eğitimi
Assistant Professor 2011 - 2012	Yıldız Teknik Üniversitesi, Faculty of Education, Matematik Ve Fen Bilimleri Eğitimi
Lecturer PhD 2007 - 2011	Marmara Üniversitesi, Atatürk Eğitim Fakültesi, İlköğretim/ Fen Bilgisi Eğitimi
Research Assistant 2006 - 2007	The University Of Iowa, College Of Education, Science Education

Supported Projects

- Ökten C. E. , Akçay H., Project Supported by Other Official Institutions, Renkli Eller Engelli Bireyleri Sanat-Spor Ve Eğitim Yoluyla Sosyal Dahil Etme Modeli Uygulaması, 2014 - 2015
- Biricik G., Akçay H., Industrial Thesis Project, Etkileşimli Eğitim, Öğretim ve Kişisel Gelişim Uygulamaları Platformu,

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

- 1. Comparison of the Quality of Written Scientific Arguments in Different Laboratory Environments**
Kapıcı H. Ö., Akçay H., Koca E. E.
INTERNATIONAL JOURNAL OF SCIENCE AND MATHEMATICS EDUCATION, vol.19, pp.1-20, 2021 (Journal Indexed in SSCI)
- 2. How do different laboratory environments influence students' attitudes toward science courses and laboratories?**
KAPICI H. Ö., AKÇAY H., de Jong T.
JOURNAL OF RESEARCH ON TECHNOLOGY IN EDUCATION, vol.52, no.4, pp.534-549, 2020 (Journal Indexed in SSCI)
- 3. Improving student teachers' TPACK self-efficacy through lesson planning practice in the virtual platform**
KAPICI H. Ö., AKÇAY H.
EDUCATIONAL STUDIES, 2020 (Journal Indexed in SSCI)
- 4. Using Hands-On and Virtual Laboratories Alone or Together—Which Works Better for Acquiring Knowledge and Skills?**
Kapıcı H. Ö., Akçay H., De Jong T.
Journal of Science Education and Technology, vol.28, pp.231-250, 2019 (Journal Indexed in SCI)
- 5. Students learning to use the skills used by practicing scientists**
AKÇAY H., Yager R. E.
Eurasia Journal of Mathematics, Science and Technology Education, vol.12, no.3, pp.513-525, 2016 (Journal Indexed in SSCI)
- 6. Student Views of Teacher Actions in Science Classrooms Designed to Meet Current Reforms**
Yager S. O., AKÇAY H., DOĞAN Ö. K., Yager R. E.
JOURNAL OF SCIENCE EDUCATION AND TECHNOLOGY, vol.22, no.6, pp.974-983, 2013 (Journal Indexed in SCI)
- 7. The Impact of a Science/Technology/Society Teaching Approach on Student Learning in Five Domains**
Akçay H., Yager R. E.
JOURNAL OF SCIENCE EDUCATION AND TECHNOLOGY, vol.19, pp.602-611, 2010 (Journal Indexed in SCI)
- 8. Bilim Söзде Bilim Tartışmasının Öğretmen Adaylarının Bilimin Doğası İnanışlarına Etkisi**
TURGUT H., AKÇAY H., İREZ O. S.
Kuram Ve Uygulamada Eğitim Bilimleri, vol.10, pp.2621-2663, 2010 (Journal Indexed in SSCI)

Articles Published in Other Journals

- 1. Impacts of Serious Games on Fifth-Grade Students' Science Achievement and Attitudes towards Science**
Toprak Yallıhep E. S., Akçay H., Kapıcı H. Ö.
International Journal of Technology in Education and Science, vol.5, no.2, pp.56-69, 2021 (Refereed Journals of Other Institutions)
- 2. Analysis of the Representations in Turkish Middle School Science Textbooks from 2002 to 2017**
Akçay H., Kapıcı H. Ö., Akçay B.
Participatory Educational Research, vol.7, no.3, pp.192-216, 2020 (Refereed Journals of Other Institutions)
- 3. Enhancing pre-service science teachers' inquiry skills in hands-on and virtual laboratory environments**
Kapıcı H. Ö., Akçay H.

Themes in e-Learning , vol.13, pp.21-32, 2020 (Refereed Journals of Other Institutions)

4. **Fen Öğrenme Motivasyon Ölçeğinin Türkçe'xye Uyarlanması**
Işın O., AKÇAY H., KAPICI H. Ö.
Mediterranean Journal of Educational Research, vol.14, no.31, pp.505-529, 2020 (Refereed Journals of Other Institutions)
5. **The Effects of Environmental Science e-Projects on Middle School Students' Behaviors and Attitudes**
Keskin C., AKÇAY H., KAPICI H. Ö.
International Journal of Technology in Education and Science, vol.4, no.2, pp.160-167, 2020 (Refereed Journals of Other Institutions)
6. **Comparison of simulation-based and textbook-based instructions on middle school students' achievement, inquiry skills and attitude**
Cayvaz A., Akçay H., Kapıcı H. Ö.
International Journal of Education in Mathematics, Science and Technology, vol.8, no.1, pp.34-43, 2020 (Journal Indexed in ESCI)
7. **Examining of Middle School Students' Ideas about Family Involvement during Science Learning**
İNALTEKİN T., AKÇAY H.
Science, Education, Art and Technology Journal, vol.4, no.1, pp.1-7, 2020 (Refereed Journals of Other Institutions)
8. **Comparison of Simulation-Based and Textbook-Based Instructions on Middle School Students' Achievement, Inquiry Skills, and Attitudes**
Cayvaz A., Akçay H., Kapıcı H. Ö.
INTERNATIONAL JOURNAL OF EDUCATION IN MATHEMATICS SCIENCE AND TECHNOLOGY, vol.8, no.1, pp.34-43, 2020 (Journal Indexed in ESCI)
9. **Structuring a New Socioscientific Issues (SSI) Based Instruction Model: Impacts on Pre-service Science Teachers' (PSTs) Critical Thinking Skills and Dispositions**
Gül M. D. , Akçay H.
International Journal of Research in Education and Science, vol.6, no.1, pp.141-159, 2020 (Refereed Journals of Other Institutions)
10. **Choices of pre-service science teachers laboratory environments:Hands-on or hands-off?**
Kapıcı H. Ö. , Akçay H.
World Journal on Educational Technology: Current Issues, vol.10, no.1, pp.41-51, 2018 (Refereed Journals of Other Institutions)
11. **Promoting Preservice Teachers' Attitudes toward Socioscientific Issues**
Yerdelen S., Cansız M., Cansız N., Akçay H.
Journal of Education in Science, Environment and Health, vol.4, pp.1-11, 2018 (Refereed Journals of Other Institutions)
12. **Argümantasyon Temelli Deney Raporu Yazımının Fen Bilgisi Öğretmen Adaylarının Argüman Yapılarını Geliştirmelerine Etkisinin İncelenmesi**
İNALTEKİN T., AKÇAY H.
e-Kafkas Eğitim Araştırmaları Dergisi, vol.4, pp.1-19, 2017 (Other Refereed National Journals)
13. **Ortaokul Fen Bilimleri Ders Kitaplarının Bloom Taksonomisine Göre İncelenmesi**
AKÇAY B., AKÇAY H., KAHRAMANOĞLU E.
Uludağ Üniversitesi Eğitim Fakültesi Dergisi, vol.30, pp.521-549, 2017 (Refereed Journals of Other Institutions)
14. **Constructing Concept Maps to Encourage Meaningful Learning in Science Classroom**
AKÇAY H.
Education, vol.138, pp.9-16, 2017 (Refereed Journals of Other Institutions)
15. **Learning from Dealing with Real World Problems**
AKÇAY H.
Education, vol.137, pp.413-417, 2017 (Refereed Journals of Other Institutions)
16. **Astronomi Öğretiminde Öğrenme Amaçlı Çoklu Yazma Etkinliklerinin Değerlendirilmesi**
AKÇAY H., BALTAÇI A.
Mersin Üniversitesi Eğitim Fakültesi Dergisi, vol.13, pp.138-151, 2017 (Refereed Journals of Other Institutions)

17. **Comparison of Science-Technology-Society Approach and Textbook Oriented Instruction on Students' Abilities to Apply Science Concepts**
Kapıcı H. Ö., Akçay H., Yager R.
International Journal of Progressive Education, vol.13, pp.18-28, 2017 (Refereed Journals of Other Institutions)
18. **Using Newspapers and Advertisement as a Focus for Science Teaching and Learning**
Akçay H., Kapıcı H. Ö., Yager R.
Universal Journal of Educational Research, vol.5, no.1, pp.99-103, 2017 (Refereed Journals of Other Institutions)
19. **Öğretmen Adayları İçin Epistemolojik İnançlar Ölçeği Uyarlama Çalışması**
AKÇAY B., USTA GEZER S., AKÇAY H.
Erzincan Üniversitesi Erzincan Eğitim Fakültesi Dergisi, vol.18, pp.1514-1536, 2016 (Refereed Journals of Other Institutions)
20. **Evaluation of Using Multimodal Writing Activities for Teaching Acid and Base Concepts**
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Eğitim, Bilim ve Teknoloji Araştırmaları Dergisi, vol.1, no.2, pp.94-102, 2016 (Refereed Journals of Other Institutions)
21. **COMPARISONS OF SCIENCE TEACHERS', PRE-SERVICE SCIENCE TEACHERS' AND SUPERINTENDENTS' BELIEFS INTENDED FOR SCIENCE TEACHING AND LEARNING**
Kapıcı H. Ö., Akçay H.
Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, vol.13, no.36, pp.153-168, 2016 (International Refereed University Journal)
22. **Preservice science teachers beliefs about astronomy concepts**
Özkan G., Akçay H.
Universal Journal of Educational Research, vol.4, no.9, pp.2092-2099, 2016 (Refereed Journals of Other Institutions)
23. **Middle School Students Attitudes toward Science Scientists Science Teachers and Classes**
Kapıcı H. Ö., Akçay H.
The Asia-Pasific Forum on Science Learning and Teaching, vol.17, no.1, pp.1-22, 2016 (Refereed Journals of Other Institutions)
24. **Particulate Nature of Matter Misconceptions Held by Middle and High School Students in Turkey**
Kapıcı H. Ö., Akçay H.
European Journal of Education Studies, vol.2, no.8, pp.43-58, 2016 (Refereed Journals of Other Institutions)
25. **The Impact of technology based learning on the beliefs and attitudes of pre service teachers**
KAPICI H. Ö., AKÇAY H., İNALTEKİN T.
International Journal of Humanities and Education, vol.1, pp.154-167, 2015 (Refereed Journals of Other Institutions)
26. **Effectiveness of Science-Technology-Society (STS) Instruction on Student Understanding of the Nature of Science and Attitudes toward Science**
AKÇAY B., AKÇAY H.
INTERNATIONAL JOURNAL OF EDUCATION IN MATHEMATICS SCIENCE AND TECHNOLOGY, vol.3, no.1, pp.37-45, 2015 (Journal Indexed in ESCI)
27. **Çoklu yazma etkinliklerinin fen ve teknoloji dersi öğretiminde kullanılmasının öğrenci başarısı ve kavram öğrenmeye etkisi**
AKÇAY H., Özyurt B., Akçay B.
Bayburt Üniversitesi Eğitim Fakültesi Dergisi, vol.9, no.2, pp.15-31, 2014 (Other Refereed National Journals)
28. **İlköğretim 6 7 ve 8 Sınıf Fen Teknoloji Ders Kitabı Etkinliklerinin İncelenmesi**
Özyurt B., AKÇAY H.
TRAKYA UNIVERSİTESİ TIP FAKULTESİ DERGİSİ, vol.2, no.2, pp.63-73, 2012 (Other Refereed National Journals)
29. **Araştırma tabanlı fen öğretimi ölçeği'nin Türkçe uyarlaması: Geçerlilik ve güvenirlik çalışması**
İNALTEKİN T., AKÇAY H.
Trakya Üniversitesi Eğitim Fakültesi Dergisi, vol.1, pp.157-185, 2011 (Other Refereed National Journals)
30. **Fen bilgisi öğretmen adaylarının fen öğrenimi ve öğretimine yönelik inanışları**

Turgut H., AKÇAY H.

TRAKYA UNIVERSİTESİ TIP FAKULTESİ DERGİSİ, vol.1, no.1, pp.127-144, 2011 (Other Refereed National Journals)

31. **Accomplishing the visions for teacher education programs advocated in the national science education standards**
AKÇAY H., Yager R.
JOURNAL OF SCIENCE TEACHER EDUCATION, vol.21, no.6, pp.643-664, 2010 (Refereed Journals of Other Institutions)
32. **Creative writing and promoting understanding in science: Alternative ways to interest students in writing about science**
AKÇAY H., Hand B., Norton-Meier L.
School Science Review, vol.92, no.339, pp.49-53, 2010 (Refereed Journals of Other Institutions)
33. **Change in Students Beliefs about Attitudes toward Science in Grades 6-9**
AKÇAY H., Yager R., İskandar S., Turgut H.
The Asia-Pacific Forum on Science Learning and Teaching(APFSLT), vol.11, no.1, pp.1-16, 2010 (Refereed Journals of Other Institutions)
34. **Implimenting Science-Technology-Society Approaches in Middle School Science Teaching**
AKÇAY H., Yager R.
Science Education Review, vol.9, no.3, pp.93-99, 2010 (Refereed Journals of Other Institutions)
35. **The Advantages of an Inquiry Approach for Science Instruction in Middle Grades**
Yager R., Akçay H.
School Science and Mathematics, vol.110, pp.5-12, 2010 (Refereed Journals of Other Institutions)
36. **A Comparison of Student Learning in STS Classes vs Those in Directed Inquiry Classes**
YAGER R., CHOİ A., YAGER S., AKÇAY H.
Electronic Journal of Science Education, vol.13, pp.186-209, 2009 (Refereed Journals of Other Institutions)
37. **Bilimin Doğası ve Bilim Tarihi Dersinin Öğrencilerin Bilimin ve Bilimsel Bilginin Doğasına İlişkin Düşüncelerine Etkisi**
ÖZDEMİR G., AKÇAY H.
E-Journal of New World Sciences Academy, vol.4, pp.218-227, 2009 (Refereed Journals of Other Institutions)
38. **Student success in recognizing definitions of eight terms found in fourth grade science textbooks**
AKÇAY H., Choi A., Yager S.
Electronic Journal of Science Education, vol.13, no.2, pp.83-100, 2009 (Refereed Journals of Other Institutions)
39. **Comparison of Student Learning Outcomes in Middle School Science Classes with an STS Approach and a Typical Textbook Dominated Approach**
YAGER R., AKÇAY H.
Research in Middle Level Education, vol.31, pp.1-25, 2009 (Refereed Journals of Other Institutions)
40. **Comparing Science Learning Among 4th-, 5th-, and 6th-Grade Students: STS Versus Textbook-Based Instruction**
Choi A., Yager S., AKÇAY H.
Journal of Elementary Science Education, vol.21, no.2, pp.15-24, 2009 (Refereed Journals of Other Institutions)
41. **What Results Indicate Concerning the Successes with STS Instruction**
YAGER R., AKÇAY H.
The Science Educator, vol.16, pp.13-21, 2007 (Refereed Journals of Other Institutions)
42. **Preservice Science Teachers Beliefs about Science-Technology and Their Implication in Society**
Bal S., AKÇAY H.
EURASIA JOURNAL OF MATHEMATICS SCIENCE AND TECHNOLOGY EDUCATION, vol.2, no.3, pp.8-22, 2006 (Refereed Journals of Other Institutions)
43. **The Effects of Varied Inquiry Experiences on Teacher and Student Questions and Actions in STS classroom**
YAGER R., ABD HAMİD N., AKÇAY H.
Bulletin of Science, Technology & Society, vol.25, pp.426-434, 2005 (Refereed Journals of Other Institutions)
44. **Lenses and Perception Investigations with Light**

AKÇAY H.

Science Activities, vol.42, pp.9-14, 2005 (Refereed Journals of Other Institutions)

Books & Book Chapters

1. **Science and Technology Literacy**
Kapıcı H. Ö., Akçay H.
in: Teaching Science, Aysun Kaplan, Editor, Nobel Yayın Dağıtım, Ankara, pp.49-68, 2020
2. **Fen ve Teknoloji Okuryazarlığı**
KAPICI H. Ö., AKÇAY H.
in: Fen Öğretimi, Öztuna Kaplan Aysun, Editor, Nobel Akademi, Ankara, pp.49-68, 2020
3. **Fen ve Fen Eğitime İlişkin Temel Kavramlar**
AKÇAY B., AKÇAY H.
in: Fen Öğretimi i, Aysun Öztuna Kaplan, Editor, Nobel Yayıncılık, Ankara, pp.1-21, 2020
4. **Cognitive theories of learning on virtual science laboratories**
Kapıcı H. Ö., Akçay H.
in: Education Research Highlights in Mathematics, Science and Technology 2019, Mack Shelly,S. Ahmet Kiray, Editor, ISRES Publishing, Iowa, pp.107-126, 2019
5. **Uluslararası fen programlarının karşılaştırılması-Amerika-Finlandiya-Singapur-Türkiye**
KOÇULU A., AKÇAY H.
in: Fen Öğrenme ve Öğretim Yaklaşımları, Behiye Akçay, Editor, Nobel Akademi, Ankara, pp.307-328, 2019
6. **Fen Eğitiminde Sanal Laboratuvarlar**
KAPICI H. Ö., AKÇAY H.
in: Fen Öğrenme ve Öğretim Yaklaşımları, Behiye Akçay, Editor, Nobel Akademi, Ankara, pp.331-345, 2019
7. **Cognitive Theories of Learning on Virtual Science Laboratories**
AKÇAY H.
in: Education Research Highlights in Mathematics, Science and Technology, Mack Shelley, S.Ahmet Kiray, Editor, ISRES Publishing, Ames, pp.154-173, 2019
8. **Promoting STEM Education for All Students**
AKÇAY H.
in: Research Highlights in STEM Education, Mack Shelley S. Ahmet Kiray, Editor, ISRES Publishing, pp.135-145, 2018
9. **Hayat Bilgisi Dersi Öğretim Programı ve Temel Beceriler**
Akçay H., Kapıcı H. Ö.
in: Hayat Bilgisi Dersi Öğretim Programı ve Temel Beceriler, Güven S,Kaymakçı S, Editor, Pegem Akademi Yayıncılık, Ankara, pp.100-124, 2016
10. **Hayat Bilgisi Dersi Öğretim Programı ve Temel Beceriler**
AKÇAY H., KAPICI H. Ö.
in: Hayat Bilgisi Öğretimi, Semra Güven, Selahattin Kaymakçı, Editor, Pegem Akademi, Ankara, pp.112-131, 2016
11. **FEN-TEKNOLOJİ-TOPLUM (FTT) TEMELLİ ÖĞRENME-ÖĞRETME YAKLAŞIMI**
AKÇAY H.
in: Etkinlik Örnekleriyle Güncel Öğrenme Öğretme Yaklaşımları, Gülay Ekici, Editor, Pegem Akademi Yayıncılık, Ankara, pp.146-176, 2015
12. **Application of Biology as Part of a Preservice Program for Science Teachers**
AKÇAY H.
in: Exemplary Science for Resolving Societal Challenges, Robert Yager, Editor, NSTA Press, Virginia, pp.69-83, 2010
13. **Teaching and Learning with STS -A case of preservice science teachers**
Akçay H.
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Refereed Congress / Symposium Publications in Proceedings

1. **Investigation of Preservice Science Teachers' Content Knowledge about Astronomy Concepts and Knowledge of Student Understanding**
AKÇAY H., İNALTEKİN T.
ICRES 2020-International Conference on Research in Education and Science, İstanbul, Turkey, 21 - 24 March 2020, pp.71
2. **The Effect of Cooperative Core Studies on Preservice Science Teachers' Understanding of Pedagogical Content Knowledge in Socio Scientific Subjects**
İNALTEKİN T., AKÇAY H.
ICEMST 2020-International Conference on Education in Mathematics, Science Technology, İstanbul, Turkey, 21 - 24 March 2020, pp.11
3. **Middle School Students' Ideas about Parent Involvement During Science Learning**
İNALTEKİN T., AKÇAY H.
International Conference on Education in Mathematics, Science and Technology, 28 April - 01 May 2019, pp.126-130
4. **Developing Inquiry Skills of Pre-service Science Teachers in Two Different Laboratory Environments**
Kapıcı H. Ö. , Akçay H.
International Conference on Education in Mathematics, Science and Technology, İzmir, Turkey, 28 April - 01 May 2019, pp.1
5. **The Study of Reliability and Validity of the Science Motivation Scale**
Işın O., AKÇAY H.
3rd International Congress on Science and Education, 21 - 24 March 2019
6. **Effectiveness of Environmental Science Projects on Middle School Students' Environmental Knowledge and Attitudes**
Keskin C., AKÇAY H.
4th International Scientific Research Congress, 14 - 17 February 2019
7. **The Effect of Serious Games on Attitudes and Achievements of Fifth Grade Students Towards Science Course**
Yallıhep Toprak S., AKÇAY H.
4th International Scientific Research Congress, 14 - 17 February 2019
8. **Content Analysis of Science Textbooks' Evaluation Questions Based on Physics, Chemistry, Biology, Environment and Astronomy Subject Area by Bloom's Taxonomy**
AKÇAY B., AKÇAY H., İNALTEKİN T.
ICEMST 2018: International Conference on Education in Mathematics, Science and Technology, 28 April - 01 May 2018
9. **MIDDLE SCHOOL STUDENTS' IDEAS ABOUT ARDUINO EDUCATION**
Evcim İ., AKÇAY H.
7th International Conference on "Innovations in Learning for the Future": Digital Transformation in Education, 11 - 14 September 2018
10. **Learning Science in Hands-on and Online Laboratories**
Kapıcı H. Ö. , Akçay H., De Jong T.
JURE EARLI, Antwerp, Belgium, 2 - 05 July 2018, pp.1-5
11. **Learning Science in Hnads-on and Online Laboratories**
KAPICI H. Ö. , AKÇAY H., DE JONG T.
JURE EARLI, Antwerp, Belgium, 2 - 06 July 2018
12. **The Effects Of Environmental Education Course On Preservice Teachers Perception About Nature**
HAYIR KANAT M., AKÇAY H.
ULEAD 2018 Annual Congress: ICRE, Manisa, Turkey, 9 - 10 May 2018, vol.1, pp.25-30
13. **ÇEVRE EĞİTİMİ DERSİNİN ÖĞRETMEN ADAYLARININ DOĞA ALGISINA OLAN ETKİSİ**
HAYIR KANAT M., AKÇAY H.

- ULEAD-VIII. International Congress on Research in Education (ICRE), Manisa, Turkey, 09 May 2018, pp.9
14. **Effects of Writing to Learn Activities in Hands-on and Virtual Laboratory Environments**
KAPICI H. Ö. , KOCA E. E. , AKÇAY H.
International Conference on Education in Mathematics, Science and Technology, Muğla, Turkey, 28 April 2018, pp.63
15. **THE EFFECTS OF USING ALGODOO IN SCIENCE TEACHING AT MIDDLE SCHOOL**
Cayvaz A., AKÇAY H.
the International Conference on Education in Mathematics, Science and Technology (ICEMST), Muğla, Turkey, 28 April - 01 May 2018
16. **Descriptive Analysis of Diagrammatic Representations of Turkish Middle School Science Textbooks**
AKÇAY B., AKÇAY H.
the International Conference on Education in Mathematics, Science and Technology (ICEMST), 28 April - 01 May 2018
17. **Fen Bilimleri Öğretmen Adaylarının Ay'ın Hareketi ve Evreleri Konusundaki İçerik Bilgileri ve Öğrenci Düşüncelerini Anlama Bilgilerinin İncelenmesi**
İNALTEKİN T., KARAÇÖP A., AKÇAY H.
27th International Conference on Educational Sciences, Antalya, Turkey, 18 - 22 April 2018
18. **Dokuzuncu Sınıf Kimya Ders Kitaplarında Maddenin Yapısı Konusu ile İlgili Görsellerin İncelenmesi**
KAPICI H. Ö. , AKÇAY H.
International Symposium on Textbooks, İstanbul, Turkey, 12 April 2018, pp.68
19. **City - Nature Relationship: Contradiction or Conformity (Kent ve Doğa ilişkisi: Tezatlık ya da Uygunluk)**
HAYIR KANAT M., Breuste J., AKÇAY H.
Turkish Geographical Society 75. Year International Congress, Ankara, Turkey, 08 November 2017, vol.1, no.9, pp.209-221
20. **City - Nature Relationship: Contradiction or Conformity**
AKÇAY H., Breuste J., HAYIR KANAT M.
International Congress on 75th Anniversary of Turkish Geography Society, Ankara, Turkey, 8 - 10 November 2017
21. **The Impact of Socio-Scientific Issues Based Instruction on the Critical Thinking Skills and Dispositions of Pre-Service Teachers**
GÜL M. D. , AKÇAY H.
INTERNATIONAL CONGRESS ON AFRO - EURASIAN RESEARCH III, İstanbul, Turkey, 19 - 21 October 2017, pp.1-2
22. **Science Teachers as Scenerio Developers for Problem-Based Learning**
ÇAKIR M., AKÇAY H.
International Conference on Education in Mathematics Science Technology, 18 - 21 May 2017
23. **ANALYSIS OF ARGUMENTATION DEVELOPMENT IN LABORATORY APPLICATIONS BASEDON THE ARGUMENTATION BASED SCIENCE INQUIRY APPROACH**
İNALTEKİN T., AKÇAY H.
The International Conference on Education in Mathematics, Science Technology (ICEMST), İzmir, Turkey, 18 - 21 May 2017
24. **Promoting preservice teachers' attitudes toward socioscientific issues through a semester-long instruction**
YERDELEN S., CANSIZ N., CANSIZ M., AKÇAY H.
International Conference on Research in Education and Science, 18 - 21 May 2017
25. **SCIENCE TEACHERS' VIEWS ABOUT IMPLEMENTATION OF COMPUTER TECHNOLOGIES IN THEIR CLASSROOMS**
İNALTEKİN T., AKÇAY H.
International Congresses on Education 2017, Budapest, Hungary, 18 - 21 May 2017
26. **Fen Bilgisi Öğretmen Adayı Eğitimcilerinin Öğretim için Sahip Oldukları Pedagojik Alan Bilgilerinin İncelenmesi**
İNALTEKİN T., AKÇAY H.

12. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi, Trabzon, Turkey, 28 - 30 September 2016
27. **MOBIL BASED TEACHING AND LEARNING MATERIALS FOR CHILDREN WITH AUTISM**
AKÇAY H.
The International Conference on Education in Mathematics, Science & Technology (ICEMST), 01 May 2016
28. **LEARNING SCIENCE BY ONLINE EXPERIENCE: GO-LAB**
Jong T. D. , AKÇAY H.
The International Conference on Education in Mathematics, Science & Technology (ICEMST), 01 May 2016
29. **Öğrenme Amaçlı Yazma Uygulamaları**
AKÇAY H.
iSER 2015 World Conference on Education, İstanbul, Turkey, 10 - 12 June 2015
30. **Problems Faced by Students with Learning Difficulties in Educational Life and in Social Interactions**
KEVSER S., AKÇAY H.
iSER 2015 World Conference on Education, İstanbul, Turkey, 10 - 12 June 2015
31. **PRE SERVICE SCIENCE TEACHERS PERCEPTIONS ABOUT GREENHOUSE EFFECT**
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Research Areas

Social Sciences and Humanities, Education, Education in Natural Sciences