

## M. SENCER CORLU

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Shortbio: <http://sencer.tstem.com> ; STEM: Integrated Teaching Project: <http://inteach.org>  
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<https://tamu.academia.edu/MSencerCorlu>

### Research Focus

STEM education (Integrated teaching knowledge); Mathematics teacher education (Social constructivism in mathematics education, equity in mathematics education); International education (International schools).

### Education Background

- Texas A&M University. Ph.D. (2012). Curriculum and instruction. Major: Mathematics education. Minor: Graduate certificate in education and social sciences advanced research methods. Dissertation: *A pathway to STEM education: Investigating pre-service mathematics and science teachers at Turkish universities in terms of their understanding of mathematics used in science*. Chair: Prof. Dr. Robert M. Capraro.
- Boğaziçi University. M.S. (2006). Science & mathematics education. Thesis: *An ethnographical analysis of an international school mathematics classroom culture*. Chair: Prof. Dr. Füsün Akarsu.
- Boğaziçi University. B.S. (2002). Secondary schools mathematics education.
- Hüseyin Avni Sözen Anadolu Lisesi. (1996). Lise diploması.

### Academic Experience

- Bahçeşehir University. Director. (2016 – ...). BAUSTEM Teacher Professional Development and Research Center. Associate Professor. (2016 – ...). Faculty of Educational Sciences.
- Bilkent University. Assistant professor. (2012 – 2016). Graduate School of Education. (Associate professor after May 2015).
- Boğaziçi University. Visiting professor. (2012 Summer). Primary Education Department.
- Texas A&M University. Graduate research & teaching. (2008 – 2012). Aggie STEM Center, The State of Texas Education Research Center, Department of Teaching, Learning, and Culture.
- Boğaziçi University. Undergraduate research assistantship. (2000 – 2001). Science & mathematics education.

### School Experience

- Bahçeşehir College, Turkey: Chief Academic Officer of over 100 schools across Turkey and Canada.
- International School of Lausanne, Switzerland: Mathematics teacher.
- Al-Akawayn School of Ifrane, Morocco: Middle and high school mathematics, life science and earth science teacher.
- MEF International School, Turkey: Middle school mathematics and ICT teacher, community service and approaches to learning area leader.
- Irmak Schools, Turkey: Middle and high school mathematics teacher.
- International Baccalaureate Organisation: Assistant examiner.
- Çağdaş Atılım Private Tutoring Institution: Mathematics tutor.

### Professional Associations

Kappa Delta Pi International Honor Society in Education: Mu Chi Chapter former officer, American Educational Research Association: Division C Texas A&M former campus liaison, National Council of Teachers of Mathematics, National Science Teachers Association, Southwest Educational Research Association, Korea Society of Mathematical Education.

### Citations (h-index)

GoogleScholar: 1295(15); Scopus: 76(4); Web of Science Core Collection: 74(4).

## Scholarly Activities

### Scholarly Activities: Peer-reviewed Articles<sup>1</sup>

1. \*Yaprak, E., **Corlu, M. S.**, & Aydın, E. (2018). Analysis of a Turkish mathematics textbook in the late Ottoman era with respect to the principles of contemporary elementary education. *Sakarya University Journal of Education*, 8(4), 214-231. [Peer-reviewed].
2. \*Keskin, Ö., **Corlu, M. S.**, & Ayas, A. (2018). Voicing mathematics teachers: A holistic overview of their early career challenges. *Educational Sciences: Theory & Practice*, 18(2), 331-371. <https://doi.org/10.12738/estp.2018.2.0025> [Peer-reviewed, SSCI, ERIC, Scopus].
3. Alp, A., Michou, A., **Corlu, M. S.**, & Baray, G. (2018). Need satisfaction as a mediator between classroom goal structures and students' optimal educational experience. *Learning and Individual Differences*, 65, 80-89. <https://doi.org/10.1016/j.lindif.2018.05.012> [Peer-reviewed, SSCI, ERIC, Scopus]. JCR2017 Impact Factor: 1.42.
4. Aşık, G., Doğanca Küçük, Z., Helvacı, B., & **Corlu, M. S.** (2017). Integrated teaching project: a sustainable approach to teacher education. *Turkish Journal of Education*, 6(4), 200-215. <http://doi.org/10.19128/turje.332731> [Peer-reviewed, ESCI]
5. \*Yağız, B., Navruz, B., & **Corlu, M. S.** (2016). Investigating the impact of International General Certificate of Secondary Education scores and gender on the Diploma Programme scores in mathematics and science. *International Journal of Educational Reform*, 25(3), 250-264. <https://doi.org/10.1177/105678791602500302> [Peer-reviewed, ERIC].
6. Capraro, R. M., Capraro, M. M., Scheurich, J., Jones, M., Morgan, J., Huggins, K.S., **Corlu, M. S.**, Younes, R., & Han, S. (2016). The impact of sustained professional development in STEM project based learning on district outcome measures. *The Journal of Educational Research*, 109(2), 181-196. <http://dx.doi.org/10.1080/00220671.2014.936997> [Peer-reviewed, SSCI, ERIC, HWWilson - Education Index, Scopus]. JCR2015 Impact Factor: 1.218.
7. \*Çatma, Z., & **Corlu, M. S.** (2016). How special are teachers of specialized schools? Assessing self-confidence levels in the technology domain. *Eurasia Journal of Mathematics, Science, and Technology Education*, 12(3), 583-592. <https://doi.org/10.12973/eurasia.2016.1245a> [Peer-reviewed, SSCI, ERIC, Scopus]. JCR2015 Impact Factor: 1.016.
8. Pfeiffer, K., Ortaçtepe, D., & **Corlu, M. S.** (2016). The effect of L1 on the production of L2 formulaic expressions. *The Journal of Language Teaching and Learning*, 6(1), 35-48. [Peer-reviewed, ESCI].
9. \*Bayram, G. İ., **Corlu, M. S.**, Aydın, E., Ortaçtepe, D., & Alapala, B. (2015). An exploratory study of visually impaired students' perceptions of inclusive mathematics education. *British Journal of Visual Impairment*, 33(3), 1-7. <http://dx.doi.org/10.1177/0264619615591865>. [Peer-reviewed, Scopus]
10. **Corlu, M. S.**, Capraro, R. M., & Çorlu, M. A. (2015). Investigating the mental readiness of pre-service teachers for integrated teaching. *International Online Journal of Educational Sciences*, 7(1), 17-28. <http://dx.doi.org/10.15345/iojes.2015.01.002> [Peer-reviewed, HWWilson - Education Index]
11. **Corlu, M. S.**, & Alapala, B. (2015). On mathematics and culture. Insights from an international school. *Journal of Humanistic Mathematics*, 5(1), 223-232. <http://dx.doi.org/10.5642/jhummath.201501.13> [Peer-reviewed; mathscinet]
12. Çetin, S. C., **Corlu, M. S.**, Capraro M. M., & Capraro R. M. (2015). A longitudinal study of the relationship between mathematics and science: the case of Texas. *International Journal of Contemporary Educational Research*, 2(1), 13-21. [Peer-reviewed, HWWilson - Education Index].
13. **Corlu, M. S.** (2014). Which preparatory curriculum for the International Baccalaureate Diploma Program is best? The challenge for international schools with regard to mathematics and science. *International Review of Education*, 60(6), 793-801. <http://dx.doi.org/10.1007/s11159-014-9446-9> [Peer-reviewed, ERIC, BEI, Scopus].
14. \*Niğdelioğlu, R. M., Ayar, M. C., & **Corlu, M. S.** (2014). Clarifying the relationship between teacher movement and culture: Four teacher profiles. *International Schools Journal*, 34(1), 67-74. [Peer-reviewed, BEI].
15. \*Sagun, S., & **Corlu, M. S.** (2014). Resolving the dilemma of international school curriculum: The case of biology. *Eurasia Journal of Mathematics, Science, and Technology Education*, 10(2), 153-158. <http://dx.doi.org/10.12973/eurasia.2014.1026a> [Peer-reviewed, SSCI, ERIC, Scopus].
16. **Corlu, M. S.**, Capraro, R. M., & Capraro, M. M. (2014). Introducing STEM education: Implications for educating our teachers in the age of innovation. *Education and Science*, 39(171), 74-85. [Peer-reviewed, SSCI, Scopus].
17. **Corlu, M. S.** (2014). FeTeMM eğitimi makale çağrı mektubu [Call for STEM education research in the Turkish context]. *Turkish Journal of Education*, 3(1), 4-10. <https://doi.org/10.19128/turje.181071> [Peer-reviewed, ESCI]

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<sup>1</sup> \* indicating a publication with graduate student(s) under my supervision

18. **Corlu, M. S.** (2013). Insights into STEM education praxis: An assessment scheme for course syllabi. *Educational Sciences: Theory & Practice*, 13(4), 2477-2485. [Peer-reviewed, SSCI, ERIC, Scopus].
19. Ayas, A., Aydın, E., & **Corlu, M. S.** (2013). Mathematics and science assessment in the Turkish educational system: An overview. *Middle Grades Research Journal*, 8(2), 11-23. [Peer-reviewed, ERIC]
20. **Corlu, M. S.** (2013). Describing the dynamic nature of mathematics as a cultural product. *International Schools Journal*, 32(2), 72-79. [Peer-reviewed, BEI]
21. Erdoğan, N., **Corlu, M. S.**, & Capraro, R. M. (2013). Defining innovation literacy: Do robotics programs help students develop innovation literacy skills? *International Online Journal of Educational Sciences*, 5(1), 1-9. [Peer-reviewed, HWWilson - Education Index]
22. Çorlu, M. A., & **Corlu, M. S.** (2012). Scientific inquiry based professional development models in teacher education. *Educational Sciences: Theory & Practice*, 12(1), 514–521. [Peer-reviewed, SSCI, ERIC]
23. **Corlu, M. S.**, Capraro, R. M., & Çorlu, M. A. (2011). Developing algorithmic computations with the help of science: A Turkish middle and high school grades study. *The Turkish Online Journal of Educational Technology*, 10(2), 72–81. [Peer-reviewed, SSCI, ERIC, Scopus].
24. **Corlu, M. S.**, Erdoğan, N., & Şahin, A. (2011). A comparative study of South Korea and Turkey: Attitudes and beliefs of middle school mathematics teachers. *Journal of the Korea Society of Mathematical Education Series D: Research in Mathematical Education*, 15(3), 295–310. [Peer-reviewed]
25. Capraro, R. M., Capraro, M. M., Yetkiner, Z. E., **Corlu, M. S.**, Özel, S., Ye, S., & Kim, H. G. (2011). An international perspective between problem types in textbooks and students' understanding of relational equality. *Mediterranean Journal for Research in Mathematics Education: An International Journal*, 10, 185–211. [Peer-reviewed]
26. **Corlu, M. S.** (2011). An aesthetic representation of Alfred North Whitehead's philosophy of mathematics education. *Philosophy of Mathematics Education Journal*, 26, #12.
27. **Corlu, M. S.**, Burlbaw, L. M., Capraro, R. M., Han, S., & Çorlu, M. A. (2010). The Ottoman palace school and the man with multiple talents, Matrakçı Nasuh. *Journal of the Korea Society of Mathematical Education Series D: Research in Mathematical Education*, 14(1), 19–31. [Peer-reviewed]
28. **Corlu, M. S.** (2010). A historical analysis of democracy in mathematics and mathematics education in European culture. *Philosophy of Mathematics Education Journal*, 25, #17.

**Scholarly Activities:** Non-Peer Reviewed Articles or Proceedings

29. **Corlu, M. S.** (2018, July). STEM bütünlük öğretmenlik: Yaparak öğrenmeden üreterek öğrenmeye [STEM integrated teaching: From learning by doing to learning by making]. *Harvard Business Review*, 7, 102-108. [not peer-reviewed]
30. **Corlu, M. S.** (2017, January). Bilimsel yöntemin dönüşümüne ait öngörülerin öğretime kaçınılmaz etkileri [Inevitable effects of the transformation of scientific method on teaching]. In J. Onur, (Ed.), Proceedings of the *Türkiye Özel Okullar Derneği 16. Geleneksel Eğitim Sempozyumu*, 16, 227-231, Antalya, Turkey. Retrieved from <http://ozelokullardernegi.org.tr/Kitap/16Antalya/AntalyaKitap.pdf>. [not peer-reviewed]
31. **Corlu, M. S.** (2016). STEM eğitimi ve uygulamaları [STEM education and its applications]. *Bahçeşehir Dünyası*, 5, 42-43. [not peer-reviewed]
32. **Corlu, M. S.** (2016). STEM-FeTeMM eğitimine sanatsal bakışın mantıksal temelleri [A rationale for STEM+A]. *TeenMag*, 1(1), 19. [not peer-reviewed]
33. **Corlu, M. S.** (2015). FeTeMM -STEM eğitimi nedir? Geleceğin matematik sınıflarında hangi yaklaşımları zorunlu kılar? [What is STEM education? What approaches does it necessitate in mathematics classrooms of the future?]. *Türkiye Özel Okullar Derneği Dergisi*, 8(34), 23-24. [not peer-reviewed]
34. **Corlu, M. S.**, Erdoğan, N., & Şahin, A. (2011, August). A comparative study of South Korea and Turkey: Attitudes and beliefs of middle school mathematics teachers. In Y. Cho, (Ed.), *Proceedings of the 16th International Seminar of Mathematics Education on Talented Children and Creativity Development*, 16, 287–302, Seoul, South Korea.
35. Çetin, S. C., **Corlu, M. S.**, Capraro, M. M., & Capraro, R. M. (2011, July). A latent growth model: Longitudinal investigation of student achievement in mathematics and science. In B. Ubuz (Ed.), *Proceedings of the 35<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education*, 1, 440, Ankara, Turkey. (SSCI)
36. Çorlu, M. A., & **Corlu, M. S.** (2010, May). The future of undergraduate science–mathematics teaching programs [Fen ve matematik öğretmenliği programının geleceği]. *Proceedings of the International Symposium of Teacher Education Policies and Problems*, 1, 477-484, Ankara, Turkey.
37. **Corlu, M. S.** (2005). Creating an international culture. *International School Magazine*, 8(1), 29–30. [Not peer-reviewed, BEI].

**Scholarly Activities: Book Chapters**

1. **Corlu, M. S.**, Svidt, K., Gnaur, D., Lavi, R., Borat, O., & Çorlu, M. A. (2018). Engineering education higher education in Europe. In Y. J. Dori, Z. Mevareach, & D. Baker (Eds.). *Cognition, Metacognition, and Culture in STEM Education*. (pp. 241-259). New York: Springer.
2. **Corlu, M. S.** (2017). STEM: Bütünleşik öğretmenlik çerçevesi [STEM: Integrated teaching framework]. In M. S. Corlu, & E. Çallı (Eds.). *STEM Kuram ve Uygulamaları*. (pp. 1-10). İstanbul, Turkey: Pusula.
3. **Corlu, M. S.** (2016). The pursuit of democracy in mathematics and mathematics education. In P. Ernest & B. Shirminan (Eds.), *Critical mathematics education*. (pp. 311-318). Information Age Publishing.
4. Creswell, J. W., & Plano-Clark, V. L. (2014). *Designing and conducting mixed methods research*. (**M. S. Corlu**, Trans. In Y. Dede, & S. B. Demir, Eds.). Ankara, Turkey: Anı Yayıncılık. (original work published in 2011).
5. Capraro, R. M., & **Corlu, M. S.** (2013). Changing views on assessment for STEM project-based learning. In R. M. Capraro, M. M. Capraro, & J. Morgan (Eds.). *STEM project-based learning: An integrated Science, Technology, Engineering, and Mathematics (STEM) approach* (2nd Edition). (pp. 109-118). Rotterdam, the Netherlands: Sense Publishers. [http://dx.doi.org/10.1007/978-94-6209-143-6\\_12](http://dx.doi.org/10.1007/978-94-6209-143-6_12)
6. **Corlu, M. S.** (2010). Arctic shrinkage. In R. M. Capraro, M. M. Capraro, J. Morgan, & J. Scheurich (Eds.), *A companion to interdisciplinary STEM project based learning: For teachers by teachers* (pp. 55-67). Rotterdam, the Netherlands: Sense Publishers.
7. **Corlu, M. S.**, & Vondracek, K. (2010). Chemistry of baking. In R.M. Capraro, M.M. Capraro, J. Morgan, & J. Scheurich (Eds.), *A companion to interdisciplinary STEM project based learning: For teachers by teachers* (pp. 199-207). Rotterdam, the Netherlands: Sense Publishers.
8. **Corlu, M. S.**, & Vondracek, K. (2010). Plan your international vacation. In R. M. Capraro, M. M. Capraro, J. Morgan, & J. Scheurich (Eds.), *A companion to interdisciplinary STEM project based learning: For teachers by teachers* (pp. 139-145). Rotterdam, the Netherlands: Sense Publishers.

**Scholarly Activities: Journals Edited**

1. **Corlu, M. S.**, & Erdoğan, N. (2015). Guest co-editor of the special issue on STEM education in the Turkish context. *International Journal of Education in Mathematics, Science and Technology*, 3(4).

**Scholarly Activities: Books**

9. **Corlu, M. S.**, & Çallı, E. (2017). Eds. *STEM Kuram ve Uygulamaları* [STEM Theory and Praxis]. İstanbul, Turkey: Pusula.
10. **Corlu, M. S.** (Ed.). *STEM Education Series for teachers by student teachers*.
  - a. \*Alapala, B. (2014). STEM education: Graphing display calculator activities for teachers by student teachers. Ankara, Turkey: FeTeMM Eğitimi Çalışma Grubu.
  - b. \*Konuk, P. (2014). STEM education: Classroom activities for teachers by student teachers. Ankara, Turkey: FeTeMM Eğitimi Çalışma Grubu.
11. **Corlu, M. S.** (Ed.). *EarlySTEM Education Book series*. (Both in Turkish and English for Mentora with AR embedded)
  - a. Nil, A. (2019). Öğretmen kitabı 4. sınıf [Teacher's guide book for 4th graders], İstanbul, Turkey: Mentora.
  - b. Nil, A. (2019). Öğretmen kitabı 3. sınıf [Teacher's guide book for 3rd graders], İstanbul, Turkey: Mentora.
  - c. Nil, A. (2019). Öğretmen kitabı 2. sınıf [Teacher's guide book for 2nd graders], İstanbul, Turkey: Mentora.
  - d. Nil, A. (2019). Öğretmen kitabı 1. sınıf [Teacher's guide book for 1st graders], İstanbul, Turkey: Mentora.
  - e. Nil, A. (2019). Konuşkan uzaylı hikaye kitabı 4. sınıf [The chatty alien story book for 4th graders], İstanbul, Turkey: Mentora.
  - f. Nil, A. (2019). Konuşkan uzaylı etkinlik kitabı 4. sınıf [The chatty alien activity book for 4th graders], İstanbul, Turkey: Mentora.
  - g. Nil, A. (2019). Tuhafliklar dünyası hikaye kitabı 3. Sınıf [A world of curiosities story book for 3rd graders], İstanbul, Turkey: Mentora.
  - h. Nil, A. (2019). Tuhafliklar dünyası (etkinlik kitabı 3. sınıf) [A world of curiosities activity book for 3rd graders], İstanbul, Turkey: Mentora.
  - i. Nil, A. (2019). Portakal işbaşında (hikaye kitabı 2. sınıf) [Ginger and the mysterious sound story book for 2nd graders], İstanbul, Turkey: Mentora.
  - j. Nil, A. (2019). Portakal işbaşında (etkinlik kitabı 2. sınıf) [Ginger and the mysterious sound activity book for 2nd graders], İstanbul, Turkey: Mentora.
  - k. Nil, A. (2019). Dargın bilgisayar (hikaye kitabı 1. sınıf) [The computer is crossed sound story book for 1st graders], İstanbul, Turkey: Mentora.

- l. Nil, A. (2019). Dargın bilgisayar (etkinlik kitabı 1. sınıf) [The computer is crossed sound activity book for 1st graders], İstanbul, Turkey: Mentora.
- m. Nil, A. (2018). Şerbet'in uzay yolu (hikaye kitabı 4. sınıf) [Daisy's adventure in space story book for 4th graders], İstanbul, Turkey: Mentora.
- n. Nil, A. (2018). Şerbet'in uzay yolu (etkinlik kitabı 4. sınıf) [Daisy's adventure in space activity book for 4th graders], İstanbul, Turkey: Mentora.
- o. Nil, A. (2018). Şerbet'in kukla işi (hikaye kitabı 3. sınıf) [Daisy's creative inventions story book for 3rd graders], İstanbul, Turkey: Mentora.
- p. Nil, A. (2018). Şerbet'in kukla işi (etkinlik kitabı 3. sınıf) [Daisy's creative inventions activity book for 3rd graders], İstanbul, Turkey: Mentora.
- q. Nil, A. (2018). Portakal'ın dünyası (hikaye kitabı 2. sınıf) [Ginger's world story book for 2nd graders], İstanbul, Turkey: Mentora.
- r. Nil, A. (2018). Portakal'ın dünyası (etkinlik kitabı 2. sınıf) [Ginger's world activity book for 2nd graders], İstanbul, Turkey: Mentora.
- s. Nil, A. (2018). Babam ne iş yapıyor? (hikaye kitabı 1. sınıf) [Ginger and his dad's work adventure story book for 1st graders], İstanbul, Turkey: Mentora.
- t. Nil, A. (2018). Babam ne iş yapıyor? (etkinlik kitabı 1. sınıf) [Ginger and his dad's work adventure activity book for 1st graders], İstanbul, Turkey: Mentora.
12. **Corlu, M. S.** (Ed.). *EarlySTEM Education Book series.* (in Turkish for Pusula)
  - a. Nil, A. (2019). Orbi'nin derdi ne? Bahçede neler oluyor? (öğretmen kitabı anaokulu, 1. sınıf), İstanbul, Turkey: Pusula.
  - b. Nil, A. (2019). Orbi'nin derdi ne? Bahçede neler oluyor? (öğretmen kitabı 2, 3, ve 4. sınıf), İstanbul, Turkey: Pusula.
  - c. Nil, A. (2019). Bahçede neler oluyor? (hikaye kitabı), İstanbul, Turkey: Pusula.
  - d. Nil, A. (2019). Bahçede neler oluyor? (etkinlik kitabı), İstanbul, Turkey: Pusula.
  - e. Nil, A. (2019). Orbi'nin derdi ne? (hikaye kitabı), İstanbul, Turkey: Pusula.
  - f. Nil, A. (2019). Orbi'nin derdi ne? (etkinlik kitabı), İstanbul, Turkey: Pusula.
  - g. Nil, A. (2018). Aşlamayan nehir ve duvarımda var bir delik (öğretmen kitabı anaokulu, 1. sınıf), İstanbul, Turkey: Pusula.
  - h. Nil, A. (2018). Aşlamayan nehir ve duvarımda var bir delik (öğretmen kitabı 2, 3, ve 4. sınıf), İstanbul, Turkey: Pusula.
  - i. Nil, A. (2018). Aşlamayan nehir (hikaye kitabı), İstanbul, Turkey: Pusula.
  - j. Nil, A. (2018). Aşlamayan nehir (etkinlik kitabı), İstanbul, Turkey: Pusula.
  - k. Nil, A. (2018). Duvarımda var bir delik (hikaye kitabı), İstanbul, Turkey: Pusula.
  - l. Nil, A. (2018). Duvarımda var bir delik (etkinlik kitabı), İstanbul, Turkey: Pusula.
  - m. Nil, A. (2017). Marsta yaşam (hikaye kitabı), İstanbul, Turkey: Pusula.
  - n. Nil, A. (2017). Marsta yaşam (etkinlik kitabı), İstanbul, Turkey: Pusula.
  - o. Nil, A. (2017). Bir inşaat aranıyor (hikaye kitabı), İstanbul, Turkey: Pusula.

#### Scholarly Activities: Panels, Forums, & Symposiums

1. Altan, S., Ateskan, A., & Toker, Z. (2020, January). *Uluslararası Bakalorya Programı: Nasıl bir Okul; Nasıl bir Öğretmen?* [International Baccalaurate: Schooling, Teaching], In **M. S. Corlu**, (Moderator). Panel discussion at the Öğretmen Kariyer Fuarı, İstanbul, Turkey.
2. Kulaberoğlu, N., Allsop, Y., & Başkonuş, S. (2019, March). *Toplum, okul ve öğretmen ilişkisi üzerine Türkiye – Birleşik Krallık karşılaştırması* [A comparative panel between Turkey and the UK on the relations between society, school and teacher], In **M. S. Corlu**, (Moderator). Panel discussion at the Eğitim Teknolojileri Zirvesi, İstanbul, Turkey
3. Çelik, Z., Erol, M., Güneş, N., & Sarıçam, U. (2018, November). *STEM: Neden, nasıl ve nedir?* [STEM education: What, why, and how?], In **M. S. Corlu**, (Moderator). Panel discussion at the Fatih Projesi Eğitim Teknolojileri Zirvesi, Ankara, Turkey.
4. **Corlu, M. S.**, Reşidoğlu, H., Kurt, A., & Özgeldi, M. (2018, June). *Matematik eğitiminde yenilikçi yaklaşımlar* [Innovative approaches in mathematics education]. In Çiçek, N. (Moderator). Panel discussion at Uğur Okulları, Mersin, Turkey.
5. Aslan-Tutak, F., Cemali, Y., & Kurt, A. (2018, May). *Kuram ve uygulama bütünlüğünde matematik eğitimi* [Mathematics education at the intersection of theory and praxis]. In **Corlu, M. S.** (Moderator). Panel discussion at the 21.yy'da Matematik Eğitimi Konferansı, İstanbul, Turkey.

6. Aydın, B., Ultav, C., **Corlu, M. S.**, & Koç, B. (2018, March). *TÜSİADSTEM paneli*. In Aydın, B. (Moderator). Panel discussion at the 5. Eğitim Teknolojileri Zirvesi, İstanbul, Turkey.
7. Acar, A., Akgündüz, D., Başaran, M., **Corlu, M. S.**, & Çavaş, B. (2017, December). *Eğitimde alternatif yaklaşımlar II: STEM uygulamaları* [Alternative approaches in education II: STEM]. In Ş. Büyüköztürk, (Moderator). Panel discussion at the Hasan Kalyoncu Üniversitesi, Gaziantep, Turkey.
8. Acar, A. C., & **Corlu, M. S.** (2017, May). *Eğitimde dijital dönüşüm ve STEM+A* [Digital transformation in education and STEM+A]. In İ. Kırcova, (Moderator). Panel discussion at the Genç Türkiye Zirvesi, İstanbul, Turkey.
9. Canbazoglu Bilici, S., & Helvacı, B. (2017, June). *STEM: Neden, nasıl ve nedir?* [STEM education: What, why, and how?], In **M. S. Corlu**, (Moderator). Panel discussion at the Adnan Menderes Üniversitesi, Aydın, Turkey.
10. Adıgüzel, T., Aslan-Tutak, F., & Aşık, G. (2017, April). *STEM: Neden, nasıl ve nedir?* [STEM education: What, why, and how?], In **M. S. Corlu**, (Moderator). Panel discussion at the Teknoloji ve Eğitim Konuşmaları III Muğla Sıtkı Koçman Üniversitesi, Turkey.
11. Akaygün, S., Aşık, G., Doğança Küçük, Z., & Kağar, C. (2017, March). *STEM: Neden, nasıl ve nedir?* [STEM education: What, why, and how?], In **M. S. Corlu**, (Moderator). Panel discussion at the Eğitimde Teknoloji Zirvesi, İstanbul, Turkey.
12. Aydın, N. İ., **Corlu, M. S.**, & Mansur, S. (2017, March) *Eğitimde alternatif yaklaşımlar I: Uluslararası Bakalorya* [Alternative approaches in education I: IB]. In G. S. Boran, (moderator). Panel discussion at the Hasan Kalyoncu Üniversitesi, Gaziantep, Turkey.
13. Krajcik, J., & Lynch, S. (2016, June). *STEM education: What, why, and how?*, In **M. S. Corlu**, (Moderator). Panel discussion at the International Conference on Education in Mathematics, Science & Technology, Muğla, Turkey. <https://www.youtube.com/watch?v=3VZdozoYKtA>
14. Capraro, R. M., Capraro, M. M., **Corlu, M. S.**, Adıgüzel, T., & Zsolt, L. (2016, June). *STEM education in different countries*. In Erdoğan, N. (Moderator). Forum discussion at the International Conference on Education in Mathematics, Science & Technology, Muğla, Turkey.
15. Prediger, S., Jorgensen, R., **Corlu, M. S.**, & Markic, S. (2014, November). *Language obstacles in mathematics and science education – the past, present and future of research and development*. Invited symposium at the iSER – The International Society of Educational Research World Conference, Cappadocia, Turkey.
16. Capraro, R. M., Ayar, M. C., & **Corlu, M. S.** (2013, March). *Türkîsh teachers should know about STEM Education because STEM is not just another four-letter acronym*. Panel discussion at the STEM Education in a Global Context: Bahcesehir K-12 Model, İstanbul, Turkey.
17. Adıgüzel, T., Ayar, M. C., **Corlu, M. S.**, & Özel, S. (2012, June). *Bilim, Teknoloji, Mühendislik ve Matematik (BTMM) eğitimi: Disiplinlerarası çalışmalar ve etkileşimler* [STEM education: Interdisciplinary investigations and interactions]. In M. A. Çorlu (Moderator). Panel discussion at the X. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi, Niğde, Turkey.

#### Scholarly Activities: Paper Presentations, Roundtables, Posters

1. **Corlu, M. S.** (2019, March). *The earlySTEM: Learning by making at the K4 level*. Roundtable discussion at the Eurasia Higher Education Summit, İstanbul, Turkey.
2. Doğança Küçük Z., Helvacı, B., **Corlu, M.S.** (2018, October). *Öğretmenlerin kendi STEM ders planlarını bütünlükte öğretmenlik çerçevesi'ne göre özdeğerlendirmeleri*. [Teachers' self-evaluations about their STEM lesson plans according to STEM integrated teaching framework.] Paper presented at the 13. Ulusal Fen ve Matematik Eğitimi Kongresi, Denizli, Turkey.
3. Aşık, G., Baş, E., Türe, K., Türkmen, İ., & **Corlu, M. S.** (2018, October). *Disiplinler arası STEM eğitimine yönelik öğretmen işbirlikleri*. [Teacher collaborations directed to inter-disciplinary STEM education]. Paper presented at the 13. Ulusal Fen ve Matematik Eğitimi Kongresi, Denizli, Turkey.
4. Mesutoğlu, C., & **Corlu, M.S.** (2018, October). *Genç STEM araştırmacı ve uygulayıcıları: Öğretmen adaylarının STEM eğitimi üzerine deneyimleri* [Young STEM researchers and practitioners: Experiences of pre-service teachers about STEM education]. Paper presented at the 13. Ulusal Fen ve Matematik Eğitimi Kongresi, Denizli, Turkey.
5. Helvacı, B., Toka, E., & **Corlu, M. S.** (2018, May). *Integrating technology into science and math classes: Approaches of STEM teachers*. Paper presented at the 5th International Eurasian Educational Research (EJER) Congress, Antalya, Turkey.
6. Mesutoğlu, C., & **Corlu, M. S.** (2018, March). *earlySTEM Program: Investigation of teachers' views and experiences*. Paper presented at the Annual National Conference of National Science Teachers Association (NSTA), Atlanta, Georgia.
7. Mesutoğlu, C., & **Corlu, M. S.** (2018, February). *earlySTEM teachers' classroom practices and views regarding the earlySTEM Program*. Paper presented at Winter Conference of the Association of Teacher Education in Europe, Utrecht, Netherlands.

8. Helvacı, B., Kamit, T., Adiguzel, T. & **Corlu, M. S.** (2018, February). *STEM Ethics*. Paper presented at Winter Conference of the Association of Teacher Education in Europe, Utrecht, Netherlands.
9. Doğança Küçük, Z., Ersoy, Z., **Corlu, M. S.** (2018, February). *STEM teaching efficacy beliefs of preschool and classroom teachers in an earlySTEM program*. Paper presented at the Winter Conference of the Association of Teacher Education in Europe, Utrecht, Netherlands.
10. Doğança Küçük, Z., Aşık, G., Helvacı, B., & **Corlu, M. S.** (2017, May). *First reflections of teachers to integrated teaching*. Paper presented at the International Conference on Education in Mathematics, Science & Technology, Kuşadası, Turkey.
11. Helvacı, B., **Corlu, M. S.**, Aşık, G., & Doğança Küçük, Z. (2017, May). *STEM ethics: Academic integrity and ethical concerns of teachers'*. Paper presented at the International Conference on Education in Mathematics, Science & Technology, Kuşadası, Turkey.
12. Doğança Küçük, Z., Aşık, G., Girgin, S., & **Corlu, M. S.** (2017, May). *Teachers' views about implementing an engineering-focused theme within an earlySTEM program*. Paper presented at the International Conference on Education in Mathematics, Science & Technology, Kuşadası, Turkey.
13. Aşık, G., Baş, E., Türe, K., Türkmen, İ., & **Corlu, M. S.** (2017, May). *A quantitative analysis of teacher perceptions on collaboration for STEM integration*. Paper presented at the International Conference on Education in Mathematics, Science & Technology, Kuşadası, Turkey.
14. Çicek, N., Kulaberoğlu, N., & **Corlu, M. S.** (2017, May). *EarlySTEM program: Reactions from practitioners and administrators*. Paper presented at the Linz STEM Education Conference, Linz, Austria.
15. \*Çallı, E., **Corlu, M. S.**, & Taylan, R. D. (2016, August). *A quantitative investigation of mathematical knowledge for teaching and self-efficacy: Mathematics teachers in Turkey*. Paper presented at the 13th International Congress on Mathematics Education, Hamburg, Germany.
16. \*Yaprak, E., **Corlu, M. S.**, & Aydın, E. (2016, August). *Investigating the foundations of Turkish elementary mathematics education through an analysis of a late Ottoman textbook*. Paper presented at the 13th International Congress on Mathematics Education, Hamburg, Germany.
17. \*Özcan, T., Ortaçtepe, D., **Corlu, M. S.** (2016, May). *The mathematical and communicative discourse in a multicultural content-based classroom: An ethnographic study*. Paper presented at the Annual Meeting of the American Educational Research Association.
18. \*Bayram, G. İ., **Corlu, M. S.**, & Alapala, B. (2015, April). *The impact of inclusive education on visually-impaired students in Turkey*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
19. \*Arslan, Ö., Corlu, M. S., & Ayas, A. (2015, April). Ortaokul öğrencilerinin sayı duyusu ve akademik başarısı arasındaki ilişkinin incelenmesi üzerine pilot çalışma [A pilot study on the investigation of the relationship between number sense skills and academic achievement of middle grades students]. Paper presented at the 24. Ulusal Eğitim Bilimleri Kongresi, Niğde, Turkey.
20. \*Keskin, Ö., & **Corlu, M. S.** (2014, November). *Sink or swim: challenges that mathematics teachers face in their early career*. Paper presented at the iSER – The International Society of Educational Research World Conference, Cappadocia, Turkey.
21. \*Özcan, T., Ortaçtepe, D., & **Corlu, M. S.** (2014, November). *Think aloud strategies of the students' non-routine problem solving*. Paper presented at the iSER – The International Society of Educational Research World Conference, Cappadocia, Turkey.
22. \*Sagun, S., Yağız, B., & **Corlu, M. S.** (2014, November). *Investigating the impact of international school curricula in science and mathematics*. Paper presented at the iSER – The International Society of Educational Research World Conference, Cappadocia, Turkey.
23. \*Niğdelioğlu, R. M., Ayar, M. C., & **Corlu, M. S.** (2014, September). *Profesyoneller ya da maceraperestler? Çok kültürlülük ve mesleki gelişim* [Professionals or adventure seekers? Multiculturalism and professional development of mathematics and science teachers]. Paper presented at the XI. Ulusal Fen Bilimleri ve Matematik Kongresi, Adana, Turkey.
24. \***Corlu, M. S.**, Sagun, S., Yağız, B., Niğdelioğlu, R. M., Dulun, Ö., Özcan, T., & Ateşkan, A. (2014, September). *Fen bilimleri ve matematik eğitimine küresel bir bakış: Uluslararası eğitim program ve prensiplerinin Türkiye ölçeğinde değerlendirilmesi* [A global perspective to science and mathematics education: An evaluation of the international education programs in the Turkish context]. Paper presented at the XI. Ulusal Fen Bilimleri ve Matematik Kongresi, Adana, Turkey.
25. Çorlu, M. A., & **Corlu, M. S.** (2014, April). *Fizik matematik dönem projelerinde araştırma ve mühendislik becerileri nasıl gelişiyor?* [How do physics and mathematics projects help research and engineering skills develop?]. Paper presented at the XI. Ulusal Fen Bilimleri ve Matematik Kongresi, Adana, Turkey.

26. Çorlu, M. A., & **Corlu, M. S.** (2014, April). Özdeğerlendirme ve serbest öğrenme becerileri, öğrenme başarılarını ne kadar açıklayabilmektedir? [How successful are self-evaluation skills in explaining achievement?]. Paper presented at the XI. Ulusal Fen Bilimleri ve Matematik Kongresi, Adana, Turkey.
27. **Corlu, M. S.**, & Ateşkan, A. (2014, April). *How are international teachers educated? Perceptions of student teachers on their education for international teaching.* Paper presented at the annual conference of American Educational Research Association, Philadelphia, PA.
28. \*Çatma, Z., & **Corlu, M. S.** (2014, April). *How special are teachers of specialized schools? Assessing self-confidence levels in the technology domain.* Paper presented at the annual conference of American Educational Research Association, Philadelphia, PA.
29. Çorlu, M. A., Şimşek, N., Şevli, H., & **Corlu, M. S.** (2013). *FəTeMM derslerinde öz değerlendirme becerilerini teşhis ve tanımlama modeli* [A quality assurance model for self assessment skills in STEM courses]. Paper presented at Ekonomi, İşletme ve Yönetişim Bilimleri Işığında Eğitim Süreçleri Sempozyumu, Kırklareli, Türkiye.
30. \*Yaprak, E., & **Corlu, M. S.** (2013, September). *An analysis of a mathematics textbook used in the early 20th century Ottoman Empire.* Paper presented at the Emerging Researchers' Conference of European Educational Research Association, Istanbul, Turkey.
31. \***Corlu, M. S.**, Ath, K. C., & Kabakçı, Ö. (2013, April). *Peeking at the praxes of Science, Technology, Engineering, and Mathematics (STEM) education through course syllabi.* Paper presented at the annual conference of American Educational Research Association, San Francisco, CA.
32. \*Hezen, E., & **Corlu, M. S.** (2013, January). *Enhancing second grade students' Van Hiele geometric thinking levels through inquiry based instruction.* Paper presented at the International Conference on Interdisciplinary Research in Education, Girne, Northern Cyprus.
33. \*Kabakçı, Ö., & **Corlu, M.S.** (2013, January). *Explanatory factors of self-efficacy beliefs of mathematics teachers: A comparison between Turkey and Australia.* Paper presented at the International Conference on Interdisciplinary Research in Education (ICOINE 13), Girne, Northern Cyprus.
34. \*Altan, S., & **Corlu, M. S.** (2013, January). *A survey research: IBYP teachers' beliefs about global issues and teaching in a global perspective.* Paper presented at the International Conference on Interdisciplinary Research in Education, Girne, Northern Cyprus.
35. \*Sagun, S. & **Corlu, M. S.** (2013, January). *The effect of IGCSE-coordinated science course and other predictors to explain IB biology scores.* Paper presented at the International Conference on Interdisciplinary Research in Education, Girne, Northern Cyprus.
36. Çorlu, M. A., & **Corlu, M. S.** (2012, September). *Hayat boyu öğrenme okuryazarlığı için öğrenci alguları yaklaşımı* [A student-perceptions approach to life-long learning literacy]. Paper presented at the 21. Eğitim Bilimleri Kongresi, Istanbul, Turkey.
37. Çorlu, M. A., & **Corlu, M. S.** (2012, September). *Ahlikten günümüze hayat boyu öğrenme: Değerler eğitimine yeni bir yaklaşım* [Life-long learning from an Akhism perspective: A new approach to values education]. Paper presented at the Sarajevo Akhism Symposium, Sarajevo, Bosnia and Herzegovina.
38. Erdoğan, N., & **Corlu, M. S.** (2012, April). *A case study: Investigating an innovative course to improve innovation literacy.* Paper presented at the annual meeting of American Education Researchers Association, Vancouver, Canada.
39. **Corlu, M. S.**, Erdoğan, N., & Capraro, R. M. (2012, April). *Developing mathematics and science literacy through robotics systems.* Paper presented at the National Council of Teachers of Mathematics (NCTM) Research Pre-session, Philadelphia, PA.
40. Erdoğan, N., Ayar, M., **Corlu, M. S.**, & Capraro, M. M. (2012, March). *Exploring a summer camp based on robotics activities prepared for underrepresented groups: A pilot study.* Paper presented at the annual conference of National Association for Research in Science Teaching (NARST), Indianapolis, IL.
41. Çorlu, M. A., & **Corlu, M. S.** (2012, February). *Structural problems of teacher education system in Turkey.* Paper presented at the Cyprus International Conference on Educational Research, Lefkosa, Northern Cyprus.
42. Çetin, S. C., **Corlu, M. S.**, Capraro, M. M., & Capraro, R. M. (2011, November). *A correlational study: Mathematics and science scores of underrepresented students in state achievement tests.* Paper presented at the annual School Science and Mathematics Association (SSMA) Convention, Colorado Springs, CO.
43. Çorlu, M. A., & **Corlu, M. S.** (2011, September). *Professionalism in mathematics teacher education.* Paper presented at the 10th annual meeting of Mathematicians Association, Istanbul, Turkey.
44. **Corlu, M. S.**, Erdoğan, N., & Şahin, A. (2011, August). *A comparative study of South Korea and Turkey: Attitudes, beliefs and creative student-oriented practices of middle school mathematics teachers.* Paper presented at the 16th International Seminar of Mathematics Education on Talented Children and Creativity Development, Jeonbuk, South Korea.

45. Çetin, S. C., **Corlu, M. S.**, Capraro, M. M., & Capraro, R. M. (2011, June). *A latent growth model: Longitudinal investigation of student achievement in mathematics and science*. Paper presented at the 35th Conference of the International Group for the Psychology of Mathematics Education (PME), Ankara, Turkey.
46. Öztelli, D., **Corlu, M. S.**, Çorlu, M. A., & Capraro, R. M. (2011, April). *A comparison study of mathematics and science tutors and school teachers in Turkey by using international studies*. Paper presented at the annual meeting of American Education Researchers Association, New Orleans, IL.
47. Avery, R., & Corlu, M. S. (2011, April). School partners in science, technology, engineering, and mathematics (STEM) collaborations. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, IL.
48. Corlu, M. S., Capraro, R. M., & Capraro, M. M. (2011, April). Turkish student teachers' attitudes towards mathematics and science integration. Paper presented at National Council of Teachers of Mathematics (NCTM) Research Pre-session, Indianapolis, IN.
49. Capraro, R. M., Capraro, M. M., **Corlu, M. S.**, Younes, R., Han, S., & Morgan, J. (2010, November). *The impact of sustained professional development in STEM project based learning on district outcomes*. Paper presented at the annual convention of the School Science and Mathematics Association (SSMA), Ft. Myers, FL.
50. Öztelli, D., **Corlu, M. S.**, Çorlu, M. A., & Capraro, R. M. (2010, June). *Teaching mathematics and science at private tutoring institutions in Turkey*. Paper presented at the World Council of Comparative Education Societies (WCCES) XIV World Congress, Boğaziçi University, Istanbul, Turkey.
51. Çorlu, M. A., & **Corlu, M. S.** (2010, May). *The future of undergraduate science-mathematics teaching programs*. Paper presented at the International Symposium of Teacher Education Policies and Problems, Hacettepe University, Ankara, Turkey.
52. **Corlu, M. S.**, Kılınc, E., & Burlbaw, L. M. (2010, April). *The Ottoman palace education*. Paper presented at the 33rd meeting of Society for the Study of Curriculum History, Denver, CO.
53. **Corlu, M. S.**, Capraro, R. M., Burlbaw, L. M., Han, S., & Çorlu, M. A. (2010, February). *The Ottoman palace school and the man with multiple talents, Matrakçı Nasuh*. Paper presented at 15th International Seminar of Mathematics Education on Talented Children and Creativity Development, Jeonbuk, South Korea.
54. **Corlu, M. S.** (2009, April). *A European perspective: Swiss middle graders' interpretation of the equal sign*. Paper presented at the annual meeting of American Education Researchers Association, San Diego, CA.
55. **Corlu, M. S.**, Ayar, M. C., Kaya, A., & Aksoy, İ. D. (2009, March). *How can science help students' computation skills improve?* Paper presented at National Science Teachers Association (NSTA) International Conference, New Orleans, LA.
56. **Corlu, M. S.**, & Kara, M. (2009, March). *Research-based experiences of an international mathematics and science teacher*. Paper presented at National Science Teachers Association (NSTA) International Conference, New Orleans, LA.
57. **Corlu, M. S.** (2009, February). *Robust statistics: What they are, why they are so important*. Paper presented at the 32nd annual meeting of the Southwest Educational Research Association (SERA), San Antonio, TX.
58. Capraro, R. M., Yetkiner, Z. E., Özel, S., **Corlu, M. S.**, Capraro, M. M., & Kim, H.G. (2009, February). *International comparison of the equal sign*. Symposium presented at the 32nd annual meeting of the Southwest Educational Research Association (SERA), San Antonio, TX.
59. **Corlu, M. S.** (2007, March). *Mathematical enculturation of middle school science and mathematics students*. Paper presented at the National Science Teachers Association (NSTA) International Conference, St. Louis, IL.
60. Çorlu, M. A., & **Corlu, M. S.** (2007, March). *Developmental model in method course for physics teacher candidates*. Paper presented at National Science Teachers Association (NSTA) International Conference, St. Louis, IL.

### Grants

**Grants:** Principal Investigator<sup>2</sup> *Integrated Teaching Project* programs:

1. **Corlu, M. S.** (PI, 2015-2020). *Integrated teaching project: STEM teacher professional development program* from Bahçeşehir Uğur Educational Institutions in the amount of 1,478,160TL (~\$350,000).
2. **Corlu, M. S.** (PI, 2016-2017). *TÜSLADSTEM: Integrated teaching for the innovative children of the knowledge society* from The Turkish Industry & Business Association in the amount of 150,000TL (~\$50,000).
3. **Corlu, M. S.** (PI, 2016-2017). *Integrated teaching project: STEM Center development program* from the Payas Belediyesi, Hatay in the amount of 54,000TL (~\$18,000).

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<sup>2</sup> See Appendix 1 for project synopses

4. **Corlu, M. S.** (PI, 2017). *Integrated teaching project: Harezmi teacher education program* from İstanbul Milli Eğitim Müdürlüğü in the amount of 15,000TL (~\$5,000).
5. **Corlu, M. S.** (PI, 2016-2017). *Integrated teaching project: early STEM curriculum development program* from Uğur Schools in the amount of 36,180TL (~\$10,000).
6. **Corlu, M. S.** (PI, 2017). *Integrated teaching project: Supporting Erzurum University STEM teachers program* from Erzurum University in the amount of 16,200TL (~\$5,000).

**Grants: Other Projects**

7. **Corlu, M. S., & Yabaş, D.** (coPIs, 2020-2022). Program evaluation project in the amount of 10,000TL (\$1,500) from TEMA Foundation.
8. **Corlu, M. S., & Yabaş, D.** (coPIs, 2020). Kızlar Bilim ile buluşuyor [Girls meet with science] program evaluation project in the amount of 10,000TL (\$1,500) from Bilim Kahramanları Derneği.
9. **Corlu, M. S.** (PI, 2020). *LabStar research and development project* in the amount of 45,000TL (\$7,500) from Bahçeşehir University BAP.
10. **Corlu, M. S.** (Investigator, 2017), In Bağçeci, B. (PI). GAÜN STEM Eğitimi project in the amount of 15,000TL (\$4,500) from Gaziantep University BAP.
11. **Corlu, M. S.** (Investigator, 2015), In E. Boskurt-Altan, & S. Ercan (PI). *FeTeMM eğitim yaklaşımı: Fen sınıflarının disiplinler arası bağlarla güçlendirilmesi* [STEM education approach: Empowering science classrooms through interdisciplinary connections] in the amount of 40,680TL (\$15,000) from The Scientific and Technological Council of Turkey (TUBITAK-4005).
12. **Corlu, M. S.** (Investigator, 2014), In A. Ateskan (PI). *Alignment between the DP and MoNEP in Turkey and the effects of these programmes on the achievement and development of university students* in the amount of \$50,000 from International Baccalaureate Organisation.
13. **Corlu, M. S.** (Project manager, 2010), In R. M. Capraro (PI) *Aggie-STEM summer camp* in the amount of \$103,004 from Energized for STEM Academy, Inc.
14. **Corlu, M. S.** (Investigator, 2008), In J. Callahan, & M. S. Torres (PI). *Leadership as a pivotal dimension in the effective integration of non-traditional teaching strategies planning* in the amount of \$5,000 from the Mexican American Latino Research Center.

**Grants: Unfunded Projects PI**

15. **Corlu, M. S.** (PI, 2015). *STEM education for visually impaired students* in the amount of \$16,000 from the US Embassy in Ankara. (*unfunded*).
16. **Corlu, M. S.** (PI, 2014). *Kırşehir FeTeMM akademisi: Hesaplamalı düşünme* [Kırşehir STEM academy: Computational thinking] in the amount of \$15,000 from The Scientific and Technological Council of Turkey (TUBITAK-4005). (*unfunded*).
17. **Corlu, M. S.** (co-PI, 2013). *Portable content management and sharing system* in the amount of \$200,000 from The Scientific and Technological Council of Turkey (TUBITAK-1003 BT0103) (*Successfully passed to second stage by ranking among first 32 out of 109 proposals – unfunded*).
18. **Corlu, M. S.** (co-PI, 2013). *Kontekste dıyarlı gömülü kullanıcı destek uygulama çerçevesi* in the amount of \$100,000 TUBITAK-1003 BT0103. (*Successfully passed to second stage by ranking among first 32 out of 109 proposals – unfunded*).
19. **Corlu, M. S.** (PI, 2013). *Developing the theoretical foundations of integrated teaching knowledge by investigating its nature and measurement in school mathematics* in the amount of \$140,000 from the European Commission Marie Curie Grants (*received a score of 88.9/100 – unfunded*).
20. **Corlu, M. S.** (PI, 2013). *STEM leadership academy* in the amount of \$65,000 from The Scientific and Technological Council of Turkey (TUBITAK-4005) (*unfunded*).

**Academic Service****Academic Service: Administration**

1. Corlu, M. S. (2016- ...). Director. *Öğretmen Mesleki Gelişim, Uygulama ve Araştırma Merkezi – BAUSTEM* [BAUSTEM Teacher Professional Development and Research Center], *Bahçeşehir University*.
2. **Corlu, M. S.** (2014-2016). Member of the board of directors. *School of Education, Bilkent University*.

**Academic Service: Editorial Membership**

3. **Corlu, M. S.** (2015-2019). Editorial board member. *Educational Sciences: Theory & Practice*.
4. **Corlu, M. S.** (2014-2015). Editorial board member. *Education and Science*.
5. **Corlu, M. S.** (2013-...). Editorial board member. *Turkish Journal of Education*.

6. **Corlu, M. S.**, & Aydın, E. (2013). Guest co-editor of the special issue on assessment. *Middle Grades Research Journal*, 8(2).
7. **Corlu, M. S.** (2013-2014). Advisory board member. *Educational Sciences: Theory & Practice*.

**Academic Service: Committee Membership**

8. **Corlu, M. S.** (2015, May). Advisory board member. *2nd International Conference on New Trends in Education STEM Education: Establishing A Bridge Across Contexts*. İstanbul, Turkey.
9. **Corlu, M. S.** (2014, September). Scientific advisory board member. *XI. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi*. Adana, Turkey.
10. **Corlu, M. S.** (2014, October-November). Local scientific committee member. *International Society of Educational Research 2014 World Conference*. Nevşehir, Turkey.
11. **Corlu, M. S.** (2013, September). Global advisory and outreach board member. *2013 STEMx Conference*. Online at <http://stemxcon.com>
12. Ernest, P. & Moller, R., D'Ambrosio, U., Tarp, A. & **Corlu, M. S.** (2012). Postmodern mathematics discussion group member. *12th International Congress on Mathematics Education (ICME-2012)*. Seoul, South Korea.
13. **Corlu, M. S.** (2012). Turkish delegation member. *United States – Turkey Science and Technology Cooperation Meeting*. Ankara, Turkey.

**Academic Service: Refereeing for Journals**

14. Journal for Research in Mathematics Education (JRME), International Journal of Qualitative Studies in Education (QSE), School Science and Mathematics Journal (SSMJ), International Journal of Educational Development, Educational Sciences: Theory & Practice (ESTP-KUYEB), Eurasia Journal of Mathematics, Science, and Technology Education, Turkish Journal of Computer and Mathematics Education (TURCOMAT), Turkish Journal of Education (TURJE), Mediterranean Journal of Mathematics Education (MJME), Curriculum History Journal, Journal of the Korea Society of Mathematical Education (JKSME), Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education (NFE-EJSME).

**Academic Service: Refereeing for Conferences**

15. American Educational Research Association annual meetings: Divisions C and K and Special Interest Groups Research in Mathematics Education and International Studies; NCTM Research Conference (formerly research pre-session); Southwest Educational Research Association annual meeting.

### Services for the Teacher Community

**Services for the Teacher Community:** Invited Meetings, In–service Teacher Professional Development Workshops, not-peer-reviewed presentations, keynote speeches, or seminars.

1. **Corlu, M. S.** (2019, December). *Azərbaycan STEM ile buluşuyor* [Azerbaijan meets STEM]. Half-day workshop at Yenilikçi Eğitim Geliştirme Araştırma Merkezi, İstanbul, Turkey.
2. **Corlu, M. S.** (2019, October). *21.yy'da öğretmenlik mesleği* [Teaching in the 21st century]. Invited presentation and one-day workshop at the erkenSTEM ile 21. Yüzyıl Yaşam Becerileri Projesi, Muğla Milli Eğitim Müdürlüğü, Muğla, Turkey.
3. **Corlu, M. S.** (2019, September). *STEM: Bütünleşik öğretmenlik çerçevesi* [STEM: Integrated teaching framework]. Half-day workshop at Türk Bilgisayar ve Matematik Sempozyumu, İzmir, Turkey.
4. **Corlu, M. S.** (2019, September). *İlkokullar için STEM müfredat programı* [earlySTEM curriculum program]. Invited presentation at the erkenSTEM Müfredat Değerlendirme Konferansı, Uğur Okulları, İstanbul, Turkey.
5. **Corlu, M. S.** (2019, June). *STEM gelecektir; hazır mısın?* [STEM is the future; are you ready?]. Invited presentation at the Fenerbahçe College, İstanbul, Turkey.
6. **Corlu, M. S.** (2019, April). *STEM eğitiminde öngörüler ve fırsatlar* [Predictions and opportunities in STEM education]. Invited presentation at the STEAM Günü, ODTÜ, Ankara, Turkey.
7. **Corlu, M. S.** (2019, April). *STEM in Turkey: A critical evaluation of the current trends and future implications*. Invited presentation at the STEM Day, İstanbul, Turkey.
8. **Corlu, M. S.** (2019, April). *STEM eğitiminde öngörüler ve fırsatlar* [Predictions and opportunities in STEM education]. Invited presentation at the Innovations in STEAM Education and Design Research Conference, İstanbul, Turkey.
9. **Corlu, M. S.** (2019, April). *STEM: Bütünleşik öğretmenlik çerçevesi kapsamında hesaplamalı düşünme* [Computational thinking in the STEM: Integrated Teaching Framework]. Invited presentation at the Geleceğin Eğitimi, Eğitimin Geleceği Symposium, İstanbul, Turkey.

10. **Corlu, M. S.** (2019, April). *21.yy'da öğretmenlik mesleği* [Teaching in the 21st century]. Invited presentation at the Yeni Nesil Eğitim Modeli STEM+A Çalıştayı, Çekmeköy İlçe Milli Eğitim Müdürlüğü & Bahçeşehir Koleji, İstanbul, Turkey.
11. **Corlu, M. S.** (2019, April). *STEM uygulamaları ve LabStar* [STEM applications and LabStar]. Invited presentation at the Bölgesel STEM Çalıştayı, Gaziantep İl Milli Eğitim Müdürlüğü & Erdem Koleji, Gaziantep, Turkey.
12. **Corlu, M. S.** (2019, March). *Yaparak-Üreterek öğrenmek* [Learning by making]. Invited presentation at the Eğitimde Yenilikçilik Zirvesi, Trabzon, Turkey.
13. **Corlu, M. S.** *21.yy'da öğretmenlik mesleği* [Teaching in the 21st century]. Invited presentation at the İstanbul Sabahattin Zaim Üniversitesi, İstanbul, Turkey.
14. **Corlu, M. S.** (2019, March). *İlkokullar için STEM müfredat programı* [earlySTEM curriculum program]. Invited presentation at the Uğur Okulları erkenSTEM Basın Lansmanı, İstanbul, Turkey.
15. **Corlu, M. S.** (2018, December). *Sınır tanımayan öğretmenlik* [Teaching without borders]. Invited presentation at the TED University, Ankara, Turkey.
16. **Corlu, M. S. & Süral, S.** (2018, November). *STEM: Bütünleşik öğretmenlik çerçevesi ve fen bilgisi öğretmenleri için STEM eğitimi örnekleri* [STEM: Integrated teaching framework and STEM education practices for preservice mathematics teachers]. Invited presentation at the Boğaziçi Üniversitesi, İstanbul, Turkey
17. **Corlu, M. S. & Süral, S.** (2018, November). *STEM: Bütünleşik öğretmenlik çerçevesi ve matematik öğretmenleri için STEM eğitimi örnekleri* [STEM: Integrated teaching framework and STEM education practices for preservice mathematics teachers]. Invited presentation and half-day workshop at the Boğaziçi Üniversitesi, İstanbul, Turkey.
18. **Corlu, M. S.** (2018, October). *21.yy'da öğretmenlik mesleği* [Teaching in the 21st century]. Invited presentation at the 21. Yüzyıl Yaşam Becerileri Projesi STEM: Öğretmen Eğitimi Çalıştayı, Muğla Milli Eğitim Müdürlüğü, Muğla, Turkey.
19. **Corlu, M. S.** (2018, October). *Matematik ve kültür* [Mathematics and culture]. Invited presentation at the Şanlıurfa Bilim Şenliği TÜBİTAK 4007 Project, Şanlıurfa, Turkey.
20. **Corlu, M. S.** (2018, October). *STEM: Bütünleşik öğretmenlik çerçevesi ve HAREZMİ eğitim modeli* [STEM: Integrated teaching framework and HAREZMİ education model]. Invited presentation at the Harezmi Eğitim Modeli Yeni Dönem Tanıtım Programı, İstanbul, Turkey.
21. **Corlu, M. S.** (2018, October). *STEM: Bütünleşik öğretmenlik çerçevesi* [STEM: Integrated teaching framework]. Invited presentation and half-day workshop at the Darussafaka Schools, İstanbul, Turkey.
22. **Corlu, M. S.** (2018, October). *STEM gelecektir; hazır mısın?* [STEM is the future; are you ready?] Invited presentation at the STEAM Days, Enka Schools, İstanbul, Turkey.
23. **Corlu, M. S.** (2018, September). *Çoklu zekadan gelişim odaklı zihin yapısına* [From multiple intelligence theory to growth mindset]. Invited presentation at the Zeka ve Yetenek Kongresi VI, ODTÜ, Ankara, Turkey.
24. **Corlu, M. S.** (2018, September). *STEM: Bütünleşik öğretmenlik çerçevesi ve öğretmen mesleki gelişimine etkileri* [STEM: Integrated teaching framework and its implications for teacher professional development]. Invited presentation at the Balıkesir'de Herkes için Bilim Var! Project, Balıkesir, Turkey.
25. **Corlu, M. S.** (2018, September). *STEM: Integrated teaching framework and its implications for teacher professional development.* Invited presentation and three-day workshop with Fulford Academy, İstanbul, Turkey.
26. **Corlu, M. S.** (2018, September). *21.yy'da öğretmenlik mesleği* [Teaching in the 21st century]. Invited presentation at the Uğur Schools, İstanbul, Turkey.
27. **Corlu, M. S.** (2018, September). *İlkokullar için STEM müfredat programı* [earlySTEM curriculum program]. One-day workshop at Gaziantep İl Milli Eğitim Müdürlüğü, Antep, Turkey.
28. **Corlu, M. S.** (2018, September). *21.yy'da öğretmenlik mesleği* [Teaching in the 21st century]. Invited presentation at the Küçük Prens Schools, İstanbul, Turkey.
29. **Corlu, M. S.** (2018, August). *Computational thinking in the STEM: Integrated Teaching Framework.* Half-day workshop at the annual meeting of the T3Turkey, İstanbul, Turkey.
30. **Corlu, M. S.** (2018, August). *STEM Bütünleşik öğretmenlik çerçevesi* [STEM integrated teaching framework]. One-day workshop at the Nun Okulları, İstanbul, Turkey.
31. **Corlu, M. S.** (2018, August). *STEM ile yaşama becerileri* [Lifelong skills with STEM]. One-day workshop at the Uğur Schools, Denizli, Turkey.
32. Özdaş, T., Mert, U., & **Corlu, M. S.**, (2018, July). *T<sup>3</sup> Turkey: A university empowered professional learning community of teachers teaching with technology.* Invited presentation at the TI STEM lab meeting, Bratislava, Slovakia.
33. **Corlu, M. S.** (2018, June). *STEM Bütünleşik öğretmenlik çerçevesi* [STEM integrated teaching framework]. One-day workshop at the Özel Bilkent Ortaokulu ve Lisesi, Ankara, Turkey.

34. **Corlu, M. S.**, Mert, U., & Özdaş, T. (2018, June). *Beynəlxalq sertifikatlı STEM təlimi* [Internationally-certified STEM training]. One-day workshop, Hedef Liseyi, Baku, Azerbaijan.
35. **Corlu, M. S.** (2018, June). *Changing ways of knowing and STEM teaching*. Invited presentation at the Novia Engelska Skolan, STEMforAll Erasmus+ Project, Stockholm, Sweden.
36. Ayas, A., & **Corlu, M. S.** (2018, May). *Program planning in adult education: Part II*. One-day workshop at the Good Governance Strategies for Organizational Excellence in Turkish Universities Program, Türkiye Bilimsel ve Teknolojik Araştırma Kurumu Başkanlığı - Türkiye Sanayi Sevk ve İdare Enstitüsü Müdürlüğü, Gebze, Turkey.
37. **Corlu, M. S.** (2018, April). *21.yy'da öğretmenlik mesleği* [Teaching in the 21st century]. Invited presentation at the İstek Schools, İstanbul, Turkey.
38. **Corlu, M. S.** (2018, April). *STEM gelecektir; hazır mısınız?* [STEM is the future; are you ready?] Invited presentation at the STEAM Days, Enka Schools, İstanbul, Turkey.
39. **Corlu, M. S.** (2018, March). *21.yy'da öğretmenlik mesleği ve STEM* [Teaching in the 21st century and STEM]. Invited presentation at the Yeni Nesil Eğitim Modeli STEM+A Çalıştayı, Kayseri İl Millî Eğitim Müdürlüğü & Kayseri Bahçeşehir Koleji, Kayseri, Turkey.
40. **Corlu, M. S.** (2018, March). *21.yy'da öğretmenlik mesleği: Bütünleşik Öğretmenlik Çerçevesi ve Öğretmen Mesleki Gelişimine Etkileri* [Teaching in the 21st century: Integrated teaching framework and its implications for teacher professional development]. Invited presentation and half-day workshop at the Yenilikçi Eğitim Kongresi, Gençlik Eğitim Kurumları, Konya, Turkey.
41. **Corlu, M. S.** (2018, March). *Changing ways of knowing in knowledge societies and implications for STEM teaching*. Keynote speech at the 20th Annual Science and Mathematics Educators Conference (SMEC), American University of Beirut, Lebanon.
42. Ayas, A., & **Corlu, M. S.** (2018, February). *Program planning in adult education: Part I*. One-day workshop at the Good Governance Strategies for Organizational Excellence in Turkish Universities Program, Türkiye Bilimsel ve Teknolojik Araştırma Kurumu Başkanlığı - Türkiye Sanayi Sevk ve İdare Enstitüsü Müdürlüğü, Gebze, Turkey.
43. **Corlu, M. S.** (2018, March). *21.yy'da öğretmenlik mesleği: Bütünleşik öğretmenlik çerçevesi ve öğretmen meslekî gelişimine etkileri* [Teaching in the 21st century: Integrated teaching framework and its implications for teacher professional development]. Invited presentation at the Kartal İlçe Millî Eğitim Müdürlüğü, İstanbul, Turkey.
44. **Corlu, M. S.** (2018, January). *21.yy'da öğretmenlik mesleği ve yenilikçilik* [Teaching in the 21st century and STEM]. Invited presentation at the Bengi Project, Balıkesir, Turkey.
45. **Corlu, M. S.**, Mert, U., & Özdaş, T. (2017, December). *STEM uygulamaları* [STEM applications in context]. One-day workshop at the Hedef Liseyi, Baku, Azerbaijan.
46. **Corlu, M. S.** (2017, December). *21.yy'da öğretmenlik mesleği ve yenilikçilik* [Teaching profession in the 21<sup>st</sup> century and innovation]. Invited presentation at the Eğitimde Yeni Yaklaşımlar, Bursa, Turkey.
47. **Corlu, M. S.**, Helvacı, B. (2017, November). *TÜSİAD STEM kiti ve öğretmen eğitimi programı* [TÜSİADSTEM kit ve teacher education program]. Invited presentation at the Eğitimde Gelecek Konferansı, İstanbul, Turkey.
48. **Corlu, M. S.** (2017, September). *21.yy'da öğretmenlik mesleği ve yenilikçi öğrenme ortamları* [Teaching profession in the 21<sup>st</sup> century and innovative learning environments]. Keynote speech at the eTwining Bölgesel Çalıştayı, Bursa, Turkey.
49. **Corlu, M. S.** (2017, September). *STEM: Tanımlar, amaçlar ve yeni dönem* [STEM: Definitions, goals and the future]. Invited presentation at the Gaziantep Üniversitesi STEM Eğitimi BAP Projesi, Turkey.
50. **Corlu, M. S.** (2017, August). *STEM with TI technology*. Half day workshop at the Üsküdar American Academy, İstanbul, Turkey.
51. **Corlu, M. S.** (2017, June). *IIP Meet and Greet*. Two-day workshop at the Fulford Academy, Ontario, Canada.
52. **Corlu, M. S.** (2017, June). *IIP Meet and Greet*. Half day workshop at the İTÜ Geliştirme Vakfı, İstanbul, Turkey.
53. **Corlu, M. S.** (2017, June). *IIP Meet and Greet*. Half day workshop at the Saint-Joseph Lisesi, İstanbul, Turkey.
54. **Corlu, M. S.** (2017, May). *STEM: Bütünleşik öğretmenlik çerçevesi* [STEM: Integrated teaching framework]. Invited presentation at the Bakırköy 1.Robotik ve Kodlama Şenliği, Bakırköy Millî Eğitim Müdürlüğü, İstanbul, Turkey.
55. **Corlu, M. S.** (2017, May). *IIP Meet and Greet*. Half day workshop at the RCMakers, American Robert College, İstanbul, Turkey.
56. **Corlu, M. S.** (2017, April). *IIP Meet and Greet*. Half day workshop at the Şişli Terakki Lisesi, İstanbul, Turkey.
57. **Corlu, M. S.** (2016, December). *STEM: Bütünleşik öğretmenlik çerçevesi* [STEM: Integrated teaching framework]. Invited presentation at the MEF Eğitimde Değişim Konferansları, MEF Üniversitesi, İstanbul, Turkey.
58. **Corlu, M. S.** (2016, October). *STEM ve bilgi temelli hayatta değişen öğretmenlik mesleği* [STEM & teaching as a profession in knowledge society]. Invited presentation at the Zihinden Makineye Bilgisayar Bilimleri ve Disiplinlerarası Eğitim Çalıştayı, İstanbul Millî Eğitim Müdürlüğü, Turkey.

59. **Corlu, M. S.** (2016, October). *STEM with TI technology*. Half day workshop at the TED Ankara, Ankara, Turkey.
60. **Corlu, M. S.** (2016, September). *STEM with TI technology*. Half day workshop at the Uğur Yaşamkent Okulları, Ankara, Turkey.
61. **Corlu, M. S.** (2016, September). *STEM alanında Türkiye'deki çalışmalar* [STEM in Turkey]. Invited presentation at the Avrupa Araştırmacılar Gecesi, İstanbul Valiliği, İstanbul, Turkey.
62. **Corlu, M. S.** (2016, August). *STEM with TI technology*. Half day workshop at the Üsküdar American Academy, İstanbul, Turkey.
63. **Corlu, M. S.** (2016, May). *Bütünleşik öğretmenlik projesinden ilk bulgular* [Preliminary findings from the integrated teaching project]. Keynote speech at the Innovative Learning Environments and Pedagogies Conference for Industry 4.0, Bahçeşehir University, İstanbul, Turkey.
64. **Corlu, M. S.** (2016, May). *Bir bütün olarak STEM ve okul* [STEM and school as a whole]. Invited presentation at the 12th International Conference: Science of Learning, Bilkent University, Ankara, Turkey.
65. **Corlu, M. S.** (2015, September). *Matematik öğretmenleri için FeTeMM eğitimi örnekleri* [STEM education practices for mathematics teachers]. Half -day workshop at the STEM&Makers Fest. Hacettepe University, Ankara, Turkey.
66. **Corlu, M. S., & Özel, S.** (2015, August). *Fen bilgisi dersinde 5E modelinin FeTeMM eğitimi kuramına göre uygulama ilke ve örnekleri* [Applications of the 5E model in middle school science according to the STEM education principles]. One-day workshop at the FeTeMM Eğitimi Yaklaşımı: Fen Sınıflarının Disiplinler Arası Bağlarla Güçlendirilmesi 4005 TÜBİTAK Project. Sinop University, Sinop, Turkey.
67. Bulut, M., & **Corlu, M. S.** (2015, July). *Lise matematik dersinde 5E modelinin FeTeMM eğitimi kuramına göre uygulama ilke ve örnekleri* [Applications of the 5E in high school mathematics according to the STEM education principles]. 30 contact hours of professional development at the e-İçerik Geliştirme Eğitimi. SEBIT, Mersin, Turkey.
68. Baykaldı, G., & **Corlu, M. S.** (2015, July). *Designing lesson materials for teaching in the 21st century: Creative drama*. Eight contact hours of professional development at the Professional Development Program for Teachers of Regional Countries. Bilkent University, Ankara, Turkey.
69. Akgün, F. M., & **Corlu, M. S.** (2015, July). *Communication skills in teaching*. Eight contact hours of professional development at the Professional Development Program for Teachers of Regional Countries. Bilkent University, Ankara, Turkey.
70. **Corlu, M. S., & Hezen, E.** (2015, July). *International Baccalaureate Primary Years Programme*. Eight contact hours of professional development at the Professional Development Program for Teachers of Regional Countries. Bilkent University, Ankara, Turkey.
71. **Corlu, M. S.,** Akgün, F. M., & Hakioglu, T. (June, 2015). *Matematik öğretmenliği bilgi ve becerileri: FeTeMM eğitimine sanat sosu ve Scientix örnekleri* [Knowledge and skills for teaching mathematics: Examples from arts in STEM education and Scientix]. Invited presentation at the Turkish Private Schools Association 21.Yüzyıl Becerileri Çalıştayı, İstanbul, Turkey.
72. Çakmakçı, G., & **Corlu, M. S.** (May, 2015). *STEM-FeTeMM eğitimi: Türkiye özelinde pratikten kurama yenilikçi bir öğrenme yolculuğu* [STEM education: A journey from theory to practice in the Turkish context]. Invited presentation at the Türkiye Bilimler Akademisi Bilim Eğitimi Kursu, Ankara, Turkey.
73. **Corlu, M. S., & Fırat, E.** (2015, May). *FeTeMM eğitimi uygulamaları: Robotik örnekleri*. Invited presentation at the 2nd International Conference on New Trends in Education "STEM Education: Establishing A Bridge Across Contexts, İstanbul, Turkey.
74. Özel, S., **Corlu, M. S.,** Yetkinel-Özel, Z. E., Aydın, E., Delice, A., & Adıgüzel, T. (May, 2015). *FeTeMM eğitimi modeli ve iyi örnekleri* [STEM education in the Turkish context and some exemplary applications]. Invited presentation at the Türk Bilgisayar ve Matematik Eğitimi Sempozyumu II, Adıyaman, Turkey.
75. **Corlu, M. S.,** Sagun, S., & Fırat, E. (January, 2015). *FeTeMM eğitimi nedir, geleceğin sınıflarında hangi yaklaşımları zorunlu kılar?* [What is STEM education and what approaches does it necessitate in future classrooms?]. Invited presentation at the 14th Annual Education Symposium of Turkish Private Schools Association, Antalya, Turkey.
76. **Corlu, M. S.** (2014, December). *FeTeMM =?=? STEM: Professional Learning Communities*. Invited presentation at the mathematics education graduate student seminars. Middle East Technical University, Ankara, Turkey.
77. **Corlu, M. S., & Can, G.** (2014, July). *Designing lesson materials for teaching in the 21st century*. 28 contact hours of professional development at the Professional Development Program for Teachers of Regional Countries. Bilkent University, Ankara, Turkey.
78. **Corlu, M. S.** (2013, July). *Designing lesson materials for teaching in the 21st century*. 24 contact hours of professional development at the Professional Development Program for Teachers of Regional Countries. Bilkent University, Ankara, Turkey.

79. **Corlu, M. S.** (2013, May). *Being an international teacher: A survival guide*. Invited presentation at Experiential Facets of International Programs and Standards in Turkish schools, Bilkent University, Ankara, Turkey.
80. **Corlu, M. S.** (2010, June). *Project based learning with graphing calculators*. Half-day workshop at Aggie-Stem Summer Conference for Teachers, Dallas, TX.
81. **Corlu, M. S.** (2010, September - March). *Project based learning*. 30 contact hours of workshop at the Hearne independent school district, Hearne, TX.
82. Capraro, M. M., Capraro, R. M., & **Corlu, M. S.** (2009, November). *STEM project-based learning in urban classrooms*. Invited presentation at Science Education Seminar Series, Texas A & M University, College Station, TX. [Seminar]
83. **Corlu, M. S.** (2002, September). *Multiple intelligence theory and Da Vinci*. Invited presentation at the 6th annual Teachers Teaching Teachers Conference, Istanbul, Turkey.

#### Services for the Teacher Community: Reports

1. Akgündüz, D., Aydeniz, M., Çakmakçı, G., Çavas, B., **Corlu, M. S.**, Öner, T., & Özdemir, S. (2015). STEM eğitimi Türkiye raporu: Günün modası mı yoksa gereksinim mi? [A report on STEM Education in Turkey: A provisional agenda or a necessity?][White Paper]. İstanbul, Turkey: Aydın Üniversitesi. Retrieved from <http://www.aydin.edu.tr/belgeler/IAU-STEM-Egitimi-Turkiye-Raporu-2015.pdf>

#### Services for the Teacher Community: Appearances in Mass Media

1. <https://www.karar.com/istanbul/stem-uygulamasina-avrupadan-odul-1382138>
2. <https://www.dha.com.tr/egitim/ogrenciler-stem-dayde-projelerini-sergiledi/haber-1641504>
3. <https://www.dha.com.tr/egitim/bahcesehir-koleji-egitimde-yenilikcilik-zirvesi-duzenledi/haber-1633719>
4. <https://www.dha.com.tr/egitim/artirilmis-gerceklik-teknolojisi-ogrencilerin-ders-kitaplarina-girdi/haber-1632103>
5. <https://inteach.org/gundem/stem-gelecektir-volkan-aki/>
6. <https://www.sozcu.com.tr/2018/egitim/yaparak-yasayarak-ogrenme-yaklasimi-stem-2782396/>
7. <http://www.hurriyet.com.tr/yerel-haberler/ankara/merkez/ugurlu-ogrencilerin-uretkenlikleri-ve-yaraticil-41007665>
8. <http://www.hurriyet.com.tr/egitim/ogrenciler-teknolojiyi-kullanarak-uretmeyi-ogrenecek-40991215>
9. <http://www.hurriyet.com.tr/yerel-haberler/ankara/merkez/goruntulu-ankarada-6nci-zeka-ve-yetenek-kon-40971814>
10. <http://www.hurriyet.com.tr/egitim/teknoloji-ve-egitim-fuari-basliyor-40838305>
11. <http://www.hurriyet.com.tr/matematik-sampiyonlarina-odul-40862881>
12. <http://www.hurriyet.com.tr/baustem-merkezi-direktoru-doc-dr-corlu-stem-40344646>
13. <http://www.hurriyet.com.tr/ugurda-ogretmenler-erkenstem-ile-21nci-yuzyil-40703073>
14. <http://www.hurriyet.com.tr/ogretmen-ve-ogrencilere-stem-egitimi-40639237>
15. <http://www.hurriyet.com.tr/stem-yaklasimi-okul-oncesinde-40397127>
16. <http://www.hurriyet.com.tr/akademik-altyapi-guclenerek-buyuyor-40317894>
17. <http://www.hurriyet.com.tr/stem-egitim-calistayi-basladi-40572867>
18. <https://www.cnnturk.com/yurttan-haberler/bursa/bursa-bilim-ve-teknoloji-merkezi-egitim-sisteminde-yeni-yaklasimlari-tartismaya-acti>
19. <http://www.milliyet.com.tr/sakarya-5-bin-stem-ogretmeni-yetistiriyor-sakarya-yerelhaber-2391244/>
20. <http://www.iha.com.tr/haber-bauda-endustri-40-icin-yenilikci-ogrenme-ortamlari-ve-pedagogileri-konferansi-561033/>

#### Services for the Teacher Community: Podcast Appearances

1. STEM Öğretmenleri ve Araştırmacıları [STEM Teachers and Researchers] hosting a biweekly program
  - a. <https://soundcloud.com/inteach/25-aralik-2019>
  - b. <https://soundcloud.com/inteach/pisa-2018-sonuclari-ozel-yayin>
  - c. <https://soundcloud.com/inteach/27-kasim-2019>
  - d. <https://soundcloud.com/inteach/11-kasim-2019-buek-haber-lego-education-ozel-yayin>
  - e. <https://soundcloud.com/inteach/06-kasim-2019>
  - f. <https://soundcloud.com/inteach/23-ekim-2019>
  - g. <https://soundcloud.com/inteach/9-ekim-2019>
  - h. <https://soundcloud.com/inteach/17-nisan-2019>
  - i. <https://soundcloud.com/inteach/3-nisan-2019>
  - j. <https://soundcloud.com/inteach/20-mart-2019>
  - k. <https://soundcloud.com/inteach/06-mart-2019>
  - l. <https://soundcloud.com/inteach/20-subat-2019>

- m. <https://soundcloud.com/inteach/26-aralik-2018>
- n. <https://soundcloud.com/inteach/28-kasim-2018>
- o. <https://soundcloud.com/inteach/31-ekim-2018>
- p. <https://soundcloud.com/inteach/19-eylul-2018>
- q. <https://soundcloud.com/inteach/10-eylul-2018>
- r. <https://soundcloud.com/inteach/4-nisan-2018>
- s. <https://soundcloud.com/inteach/7-mart-2018>
- t. <https://soundcloud.com/inteach/stem-ogretmenleri-7-subat-2018-yayini>
- u. <https://soundcloud.com/inteach/stem-ogretmenleri-pilot-yayini-20-ocak-2018>

### Teaching Activities

#### Teaching Activities: Courses Offered at Bahçeşehir University

1. 2019 Fall: EDT6101 Quantitative methods in educational research, ECE2101 Mathematics education in early childhood (coteach with Yabaş D.); ECE2103 Science education in early childhood (coteach with Boyacı, H.S.).
2. 2019 Summer: Math 2002 Calculus II
3. 2019 Spring: EDT5012 Statistical data analysis
4. 2018 Fall: EDT6101 Quantitative methods in educational Research
5. 2018 Spring: EDT5020 Selected topics: International education and schools.
6. 2018 Fall: EDT6101 Quantitative methods in educational research, earlySTEM for classroom teachers (Hasan Kalyoncu University).
7. 2017 Fall: EDT6101 Quantitative methods in educational research.
8. 2017 Spring: EDT5012 Statistical data analysis.
9. 2016 Fall: EDT5020 Selected topics: International education and schools, EDT6114 Emerging topics: STEM education research.

#### Teaching Activities: Courses Offered at Bilkent University

10. 2016 Spring: Math 105 Calculus I, TE 545 Special teaching methods in mathematics II, TE 565 School experience II, CI 511 Curriculum in an international context.
11. 2015 Fall: MTE 501 Mathematics curriculum review, TE 535 Special teaching methods in mathematics I, TE 555 School experience I, TE 575 Teaching practice.
12. 2015 Spring: TE 545 Special teaching methods in mathematics II, TE 565 School experience II, CI 511 Curriculum in an international context.
13. 2014 Fall: CI 604 Advanced statistics in education, MTE 501 Mathematics curriculum review, TE 535 Special teaching methods in mathematics I, TE 555 School experience I, TE 575 Teaching practice.
14. 2014 Summer: CI 513 Statistics.
15. 2014 Spring: TE 545 Special teaching methods in mathematics II, TE 565 School experience II, MTE 503 Computer technology in mathematics, CI 511 Curriculum in an international context.
16. 2013 Fall: CI 604 Advanced statistics in education, MTE 501 Mathematics curriculum review, TE 535 Special teaching methods in mathematics I, TE 555 School experience I, TE 575 Teaching practice.
17. 2013 Summer: CI 513 Statistics.
18. 2013 Spring: TE 545 Special teaching methods in mathematics II, TE 565 School experience II, MTE 503 Computer technology in mathematics.
19. 2012 Fall: CI 604 Advanced statistics in education, TE 535 Special teaching methods in mathematics I, TE 555 School experience I, TE 575 Teaching practice.

#### Teaching Activities: Courses Offered at Boğaziçi University

20. 2012 Summer: PRED 470 Assessment in mathematics and science education.

#### Teaching Activities: Courses Offered at Texas A&M University

21. 2011 Fall: TEFB 412 Elementary mathematics methods with fieldwork.

#### Teaching Activities: Courses Assisted at Texas A&M University

22. 2011 Spring: TEFB 412 Elementary mathematics methods with fieldwork, MASC 450 Integrated mathematics and science.
23. 2011 Fall: MASC 351 Problem solving, MASC 450 Integrated mathematics and science.
24. 2010 Spring: TEFB 412 Elementary mathematics methods with fieldwork, MASC 351 Problem solving.

### Graduate Students

**Graduate Students:** Supervisor (Committee Chair or CoChair)<sup>3</sup>

1. \*Zehra Çatma (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2013.  
*How special are teachers of specialized schools? A quantitative investigation of Turkish mathematics teachers' self-confidence levels in the technology domain.*
2. \*Burcu Yağız (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2014.  
*Investigating the impact of international general certificate of secondary education scores and gender on the diploma programme scores in mathematics and science.*
3. \*G. İrem Bayram (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2014.  
*Exploring the academic and social challenges of visually impaired students in learning high school mathematics.*
4. \*R. Merve Niğdelioğlu (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2014.  
*Professionals or adventure seekers? Eliciting the impact of relocation and mobility on teaching quality of mathematics and science teachers.*
5. Mustafa Aydos (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2015.  
*The impact of teaching mathematics with GeoGebra on conceptual understanding in limit and continuity: The case of Turkish gifted and talented students.*
6. Ezgi Çallı (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2015.  
*A quantitative investigation of mathematical knowledge for teaching and self-efficacy: Middle school mathematics teachers in Turkey*
7. \*Esra Yaprak (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2015.  
*Investigating the foundations of Turkish elementary mathematics education through an analysis of a late Ottoman textbook.*
8. Özge Arslan (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2016.  
*An investigation of students' number sense and attitude scores as predictors of mathematics achievement.*
9. Gülhan Can Baş (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2017.  
*Investigating self efficacy beliefs and algebraic knowledge of turkish middle school mathematics teachers by the interaction of age groups and teaching degrees*
10. Gamze Baykaldı (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2017.  
*Exploring challenges of mathematics teachers who teach high school mathematics for visually impaired students in Turkey.*
11. Nil Şenkutlu (MA in Curriculum and Instruction with Teaching Certificate, Bilkent University) – 2018.  
*A systematic analysis of an initial stem professional development program: A case study.*

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<sup>3</sup> \* if published as a journal article

### Appendix 1: Project Abstracts

1. **Corlu, M. S.** (PI, 2015-2020). *Integrated teaching project: STEM teacher professional development program* from various organizations in the amount of 1,478,160TL (~\$350,000). – Bahçeşehir Uğur Educational Institutions.

Bu proje beş sene boyunca STEM: Bütünleşik Öğretmenlik Çerçevesinin mantıksal ve kavramsal altyapısının veriye dayalı bir öğretmen yol haritası olarak kuramsallaştırılmasını hedeflemektedir. Proje bünyesinde bu yol haritasına dayanan, ortaokul ve lise seviyesinde matematik ve fen bilimlerine yönelik sürdürülebilir bir öğretmen mesleki gelişim programı geliştirilecektir. Projenin ilk defa desteklendiği 2015 senesinde Ankara’da bir pilot çalışma ile sene boyunca 45 matematik ve fen bilimleri öğretmeni programa katılmıştır. 2016 yılında projenin ikinci senesinde, öğretmenler arasından seçilen 15 öğretmenin çalıştay liderliğinde, 13 ayrı lokasyonda, toplam 250 öğretmene ulaşılmıştır. 2017 ve 2018 senelerinde ise tamamen çevrimiçi programa toplam 2,000 öğretmen katılmıştır. Projenin son senesinde ise 400 öğretmen eğitim programı içerisinde yer almıştır. Programa katılan öğretmenler sekiz aylık süreç boyunca yüzyüze çalıştaylar, çevrimiçi eğitimler, ders planı yazımları, sınıf içi uygulamalar, uygulama değerlendirmeleri ve sınavlar da dahil olmak üzere toplamda 92 saatlik bir çalışma gerçekleştirirler. Programın ilk senesinde proje yürütücüsünün liderlik ettiği çalıştaylar, ikinci seneden itibaren lider öğretmenlere devredilecek, projenin üçüncü senesinde ise profesyonel kamera kayıtlarının alınması ve editlenmesi ile gerçekleşmiştir. Öğretmenler ile akademisyenler arasında etkin bir iletişim ve etkileşimin sürekliliği için çevrimiçi öğrenme sistemleri program içerisinde önemli bir yer tutmaktadır. Projenin özgün değeri, STEM: Bütünleşik Öğretmenlik Çerçevesinin Türkiye genelinde uygulanabilecek bir kuramsal yol haritası olarak ve sürdürülebilir bir öğretmen eğitimi yönteminin Türkiye’de ilk defa bu kapsayıcılıkla geliştirilmiş olmasıdır. Projenin yaygın etkisinin daha önce Türkiye ölçeğinde görülmemiş ölçekte olacağı ve STEM: Bütünleşik Öğretmenlik Çerçevesinin ülke çapında eğitim politikaları ve Millî Eğitim Bakanlığı resmi müfredatını etkileyeceği öngörülmektedir. Projenin diğer bir önemli yaygın etkisi ise <http://inteach.org> portalı üzerinden sürdürülebilir bir öğretmen ağı oluşturulması olacaktır.

This project aims to establish a theoretical underpinning for the STEM: Integrated Teaching Framework and to generate a data-driven teaching roadmap within a three-year period. Based on this roadmap, a sustainable professional development program for mathematics and science teachers at secondary and high school levels will also be developed. In 2015, when the project received its first support, a pilot study in Ankara was conducted involving 45 mathematics and science teachers. In 2016, the second year of the project, it reached a total of 250 teachers through workshops in 13 different locations given by 15 teachers selected from the group who participated in the previous year’s program. There were a total of 2,400 teachers in the program between 2017-2020. During an eight-month period, teachers participating in the program undertook 92 hours of study, which consisted of face-to-face workshops, online training, the writing of lesson plans, classroom practice and evaluation, and also examinations. The workshops were led by the project coordinator in the first year of the program and were transferred to the STEM lead teachers in the second year; in the third year of the project a much wider teacher audience of over 1,500 will be reached using professionally edited video recordings of the workshops. Online learning management systems are an important part of the program, ensuring effective communication and continuity of interaction between teachers and academics.

The intellectual merit of the project is that it allows the theoretical roadmap for the STEM: Integrated Teaching Framework to be implemented for the first time as a sustainable and inclusive professional development method for teachers across Turkey. The broader impact of the project relies on its unprecedented scale: the largest of its kind in Turkey. The STEM: Integrated Teaching Framework also influenced the official curriculum and nationwide educational policies of the Ministry of Education. Another important broader impact of the project has been the creation of a sustainable network of teachers through the [www.inteach.org](http://www.inteach.org) portal.

2. **Corlu, M. S.** (PI, 2016-2017). *TÜSİADSTEM: Integrated teaching for the innovative children of the knowledge society* from The Turkish Industry & Business Association in the amount of 150,000TL (~\$50,000).

Bu proje liderlik potansiyeli taşıyan ortaokul 5 ve 6. sınıf seviyesinde fen bilgisi veya matematik derslerine giren genç öğretmenlere yönelik düşük yoğunluklu bir mesleki gelişim programının geliştirilmesi amacıyla. Projenin ilk aşaması Ekim 2016 ile Temmuz 2017 arasında sürecektir ve 40 TÜSİADSTEM Lider Öğretmeni yetiştirerek yaklaşık 3,600 ortaokul öğrencisine dolaylı olarak ulaşılması hedeflenmektedir. Projenin özgün değer ve yaygın etki başlıkları altında dört ana çıktısı olacaktır: a) Esnek Müfredat: TÜSİADSTEM kiti ve bu kit içerisinde uygulama rehberi ve yüzyüze öğretmen eğitimleri; b) Mesleki Öğrenme Topluluğu: TÜSİADSTEM portalı ve bu portal içerisinde çevrimiçi öğretmen eğitimleri, c) Bilgi Toplumu: TÜSİADSTEM Fuarı; d) Kuram ve Uygulama: TÜSİADSTEM etki analizi raporu ve akademik çalışmalar.

Projenin ikinci senesinde lider öğretmenlerin mentörlük sorumluluğu olarak programın 5 farklı şehirde uygulanması ile 800 öğretmen ve 72,000 öğrenciye ulaşma potansiyeli maddi kaynağın sağlanıp sağlanamamasına bağlı olarak planlanmıştır. Proje portalı <http://ogretmen.tusiadstem.org> alan adı ile kaydedilmiştir.

This project aims to develop a low-intensity professional development program for young teachers with leadership potential who teach science and mathematics courses at the fifth and sixth grade levels. The first phase of the project ran from October 2016 to July 2017, training 40 TUSIAD STEM lead teachers, and indirectly reaching approximately 3,600 middle school students.

The project will have four main outputs, relating to intellectual merit and broader impact.

1. Flexible Curriculum: a TUSIADSTEM kit and a guide for the development of one-on-one teacher training
2. Professional Learning Community: the TUSIADSTEM portal, and the online teacher training courses it offers
3. Knowledge Society: the TUSIADSTEM fair
4. Theory and Practice: a TUSIADSTEM impact analysis report and related academic studies

In the second year of the project, it was planned that the program would be implemented across five different cities by giving responsibility for mentoring to the lead teachers. This offered the potential to access 800 teachers and 72,000 students, depending on the levels of financial support provided. The domain name <http://ogretmen.tusiadstem.org> is registered as the project portal.

3. **Corlu, M. S.** (PI, 2016-2017). *Integrated teaching project: STEM Center development program* from the Payas Belediyesi, Hatay in the amount of 54,000TL (~\$18,000).

Bu proje STEM: Bütünleşik Öğretmenlik Çerçevesine dayanan bir STEM merkezinin kurulumu konularına yoğunlaşan bir araştırma, eğitim ve danışmanlık projesidir. Proje kapsamında geliştirilecek olan STEM merkezi modelinde fiziksel ve öğrenme ortamlarının nasıl tasarlanacağı, merkezin okulları, öğretmenleri ve sınıf içindeki öğrenme sürecini nasıl destekleyeceği, kendi içerisinde nasıl organize olacağı ve geniş kitlelere ulaşabileceği ile birlikte öğretim kadrosunun nasıl yetiştirileceği ve destekleneceği araştırılacaktır. Proje bünyesinde 2016-2017 eğitim öğretim yılı boyunca Hatay ili Payas ilçesi belediyesi tarafından kurulması planlanan PayasSTEM Merkezi'ne danışmanlık yapılacak, bu kapsamda merkezin fiziksel düzeninin tasarlanması, eğitim kadrosunun seçilmesi ve eğitilmesi, program içeriklerinin değerlendirilmesi ve yeni kurulan merkezin yaygın etkisinin artırılması konularında destek sağlanacaktır.

Projenin özgün değeri, STEM: Bütünleşik Öğretmenlik Çerçevesinin okul dışı ortamlarda ve Hatay ili özelinde uygulanabilecek bir kuramsal yol haritası olmasını gösterecek olmasıdır. Projenin yaygın etkisi olarak ise STEM: Bütünleşik Öğretmenlik Çerçevesinin Çukurova bölgesi özelinde bir sinerji yaratacağı, yerel eğitim politikalarını etkileyeceği öngörülmektedir. PayasSTEM Merkezi portalı <http://payastem.com> alan adı ile kaydedilmiştir.

This project—comprising research, training and consultation—focuses on the establishment of a STEM center based on the Integrated Teaching Framework. The STEM center model to be developed in the project will explore how the physical and virtual learning environments will be designed, how the center will support the schools, the teachers and the classroom learning process, how to organize and reach large numbers within the center, and how to train and support the teaching staff. Within the scope of the project, the PayasSTEM center planned to be established by the Municipality of Payas District of Hatay Province during the 2016-2017 academic year will be consulted. Support will be provided for the design of the center's physical layout, for the selection and training of its instructors and staff, for the evaluation of program contents, and for increasing the broader impact of the newly established center. The intellectual merit of the project lies in the STEM: The Integrated Teaching Framework, which will offer a theoretical roadmap that can be applied in the non-school settings of the Hatay province. In terms of broader impact, it is anticipated that the STEM: Integrated Teaching Framework will also affect local education policies, and create synergies in the Çukurova region.

4. **Corlu, M. S.** (PI, 2017). *Integrated teaching project: Harezmi teacher education program* from İstanbul Milli Eğitim Müdürlüğü in the amount of 15,000TL (~\$5,000).

Bu proje, İstanbul İl Millî Eğitim Müdürlüğü ve Millî Eğitim Bakanlığı Yenilik ve Eğitim Teknolojileri (YEĞİTEK) Genel Müdürlüğü tarafından yönetilen ve kısaca Harezmi Modeli olarak bilinen uygulamalar bütünü kapsamında bir öğretmen eğitimi programının geliştirilmesi amacıyla. Proje kapsamında Harezmi Modelinin, STEM: Bütünleşik Öğretmenlik Çerçevesi ile uyumlu hale getirilmesi ve bu kapsamda biriken know-how'ından faydalanılması için kamu kurumlarının yöneticilerine danışmanlık yapılacaktır. Aynı zamanda 10 haftalık süreçler boyunca Harezmi Modeli uygulamalarının planlanması, uygulayıcı öğretmenlere bu kapsamda kısa süreli bir eğitim verilmesi ve uygulayıcı öğretmenlerin proje yürütücüsünden alacakları dönütlerle uygulamalarını geliştirmeleri sağlanacaktır. Proje, Şubat 2017 ayı içerisinde başlayacak ve aynı ay içerisinde bitirilecektir.

This project aims to develop a teacher training program, managed by the İstanbul Provincial Directorate of National Education and the Ministry of Education's General Directorate of Innovation and Education Technologies, to be known in short as the "Harezmi Model." Within the scope of the project, consultancy will be provided to the administrators of public institutions in order to achieve consistency with the STEM: Integrated Teaching Framework, utilizing knowledge accumulated under the auspices of that project. A 10-week process of planning the Harezmi Model will be put in place, giving training to practicing teachers and improving their practice through the feedback they will receive from the project team. The project itself will start in February 2017 and will be completed within the same month.

5. **Corlu, M. S.** (PI, 2016-2017). *Integrated teaching project: early STEM curriculum development program* from Uğur Schools in the amount of 36,180TL (~\$10,000).

Bu proje ile erkenSTEM /STEM Junior öğretim programının geliştirilmesi amaçlanmaktadır. Proje üç sene sürecektir. erkenSTEM /STEM Junior bünyesinde kullanılacak eğitim materyallerinin (Öğretmen Kitabı, Etkinlik Kitabı, Hikaye Kitabı) seneler boyunca aşama aşama okul öncesinden dördüncü sınıfın sonuna kadar her kademeyi kapsayacak şekilde geliştirilmesi; bu kapsamda alan testlerinin yapılması, alan testini yapacak öğretmen ekibinin yetiştirilmesi ve meslektaşlarıyla paylaşımda bulunmaları aşamalarında desteklenmeleri planlanmıştır. Proje içerisinde ilk sene boyunca yaklaşık 250 öğretmene, projenin ikinci ve üçüncü senelerinde ise yaklaşık 1600 öğretmen ve 32.000 öğrenciye ulaşılması hedeflenmektedir. Öğretmenlerin tamamı çevrimiçi sistem üzerinden takip edilecek ve görüşleri ile program revize edilecektir. Proje bünyesinde üretilen materyaller ise ticari kapsamda değerlendirilecek ve proje yürütücüsünün telifinde kalacaktır. Projenin özgün değeri olarak proje yürütücüsünün geliştirdiği STEM: Bütünleşik Öğretmenlik Çerçevesi okul öncesi ve ilkokullar için ilk defa özelleştirilmiş olacak ve programların etki analizleri yapılmış olacaktır. Projenin yaygın etkisi olarak akademik konferans ve dergilerde araştırma sonuçları paylaşılacak; İl Millî Eğitim Müdürlükleri ile işbirliği yapılarak program resmi okullar için cazip hale getirilecek ve bu sayede STEM ve Bütünleşik Öğretmenlik Çerçevesinin görünürlük ve farkındalığı artırılabilecektir.

This project, which will last three years, aims to develop “Early STEM” and “STEM Junior” curricula. Educational materials (Teacher Book, Activity Book, Story Book) to be used in the context of “Early STEM” and “STEM Junior” will be developed, covering every year up to the end of the fourth grade. Subject knowledge tests will be developed, and a team of teachers trained both to administer these tests and to support the process of sharing their knowledge with their colleagues. During the first year, 250 teachers participated in the project, and it is anticipated that the second and third years of the project will reach nearly 1,600 teachers and 32,000 students. All the teachers will be followed up through the online system and the program will be revised on the basis of their feedback. The materials to be produced within the project will be evaluated for commercial use and will remain under the copyright of the project executive. The intellectual merit of the project will be the customization of the STEM: Integrated Teaching Framework—itsself developed by the project leader—for preschool and elementary schools. This innovation will be the first of its kind, and impact analysis of the programs that result from it will be undertaken. In terms of the project’s broader impact, the results of the research will be shared at academic conferences and in journals; by cooperating with the Provincial Directorates of National Education the program will be appeal to public schools and significantly increase the visibility and awareness of the STEM: Integrated Teaching Framework.

6. **Corlu, M. S.** (PI, 2017). *Integrated teaching project: Supporting Erzincan University STEM teachers program* from Erzincan University in the amount of 16,200TL (~\$5,000).

Bu proje, hali hazırda Bahçeşehir Üniversitesinde yürütülen “STEM: Bütünleşik Öğretmenlik Projesi: STEM Lider Öğretmen Mesleki Gelişim Programının yaygın etki çalışmaları kapsamında Erzincan Üniversitesinde STEM öğretmen eğitimi projelerinin yazılabilmesi ve yönetilebilmesi için öğretim üye ve görevlilerine 2016-2017 akademik yılı boyunca eğitim verilmesini ve danışmanlık yapılmasını kapsamaktadır. Bu kapsamda İstanbul’da yapılacak eğitimlerde Eğitim Fakültesi öğretim üyeleri ve görevlileri STEM: Bütünleşik Öğretmenlik Çerçevesi konusunda bilgilendirilecek, sonrasında ise 30 STEM lider öğretmenini yetiştirebilmeleri için bir örnek çalıştay Erzincan’da proje yürütücüsü tarafından yönetilecek, öğretmenlerin yetiştirilmesi süreci takip edilecek, gerekli uzak eğitim altyapısı sağlanacak ve know-how paylaşımı yapılacaktır. Programa katılan öğretmenler sekiz aylık süreç boyunca yüzyüze çalıştaylar, çevrimiçi eğitimler, ders planı yazımları, sınıf içi uygulamalar, uygulama değerlendirmeleri ve sınavlar da dahil olmak üzere toplamda 92 saatlik bir çalışma gerçekleştireceklerdir. Projenin özgün değeri, STEM: Bütünleşik Öğretmenlik Çerçevesinin Erzincan ili özelinde uygulanabilecek bir kuramsal yol haritası olmasını gösterecek olmasıdır. Projenin yaygın etkisi olarak ise STEM: Bütünleşik Öğretmenlik Çerçevesinin Erzincan ili özelinde bir sinerji yaratacağı, yerel eğitim politikalarını etkileyeceği ve üniversite merkezli sürdürülebilir öğretmen eğitimi programlarına örnek olacağı öngörülmektedir.

This project aims to educate faculty members and staff during the 2016-2017 academic year and to provide consultancy services for the writing and management of STEM teacher education projects at Erzincan University, within the scope of the "STEM: Integrated Teacher Project — Lead Teacher Professional Development Program" currently being undertaken at Bahçeşehir University. In this context, a sample workshop will be held at Erzincan, to be managed by the project executive. The establishment of a teacher training process will follow, alongside the provision of the necessary distance education infrastructure for the sharing of relevant knowledge. Teachers participating in the program will perform a total of 92 hours’ work over a period of eight months. This will include hundreds of workshops, online training sessions, the writing of lesson plans, classroom practice, practice assessments, and exams. In terms of intellectual merit, the STEM: Integrated Teaching Framework will demonstrate an institutional road map that can be applied across the Erzincan province. The broader impact of the project is stipulated in the STEM: Integrated Education Framework, which will create a synergies within Erzincan province, affect local education policies, and set an example for university-based sustainable teacher education programs.