Kemal Akoğlu, Ph.D

Curriculum Vitae

Boğaziçi Üniversitesi Kuzey Kampüs Eğitim Fakültesi Ofis:505 Bebek İstanbul

(+90) 212 359 6464

kemal.akoglu@boun.edu.tr

kemalakoglu@gmail.com

EDUCATION

Ph.D.	North Carolina State University, Raleigh, NC *Major:* Mathematics&Statistics Education *Dissertation Title:* Blending Online Coursework and Small Learning Communities to Examine Professional Growth in Teaching Statistics: A Phenomenological Case Study *Advisor:* Hollylynne S. Lee	2018
M.S.	North Carolina State University, Raleigh, NC, *Major:* Mathematics Education *Minor:* Mathematics *Thesis Title:* Research Based Suggestions to Overcome the Cognitive Issues about Teaching and Learning of Conditional Probability *Advisor:* Hollylynne S. Lee	2014
B.S.	Ankara University, Ankara, Turkey *Major:* Mathematics	2008

ACADEMIC APPOINTMENTS

Boğaziçi University   2020-present

Department of Mathematics and Science Education

Full time faculty

Assistant Professor

North Carolina State University (NCSU), Raleigh, NC, USA   2012-2017

NCSU STEM Education Department

Graduate Teaching & Research Assistant

- Assisted faculty in undergraduate and graduate level course work (EMS 472; EMS 519)

- Supervised several student teachers during their student teaching experience

NCSU Friday Institute for Educational Innovation

Graduate Research Assistant

- Designed and facilitated Massive Online Open Courses for Educators (MOOC-Ed) (2015-2017)

- Researched on the PTMT (Preparing Teaching Mathematics with Technology) project funded by the National Science Foundation (2012-2014; 2015-2016)

- Researched on the GAMES (Gateways to Algebraic Motivation, Engagement and Success) project funded by the National Science Foundation (2014-2015)

- MOOC-Ed projects funded by the National Science Foundation (NSF) and the Hewlett Foundation, the Networked MOOC-Ed project funded by American Statistical Association. (2015-2017)

- Researched on the Networked MOOC-Ed professional learning community project, funded by American Statistical Association (ASA) to support local changes in teaching statistics practices. (2016-2017)

Clemson University, Clemson, SC, USA   2009-2010

Applied Sociology, *Graduate Teaching Assistant*

- Assisted faculty in undergraduate level course work

- Conducted data analysis for a medical sociology research project.

RESEARCH

PEER-REVIEWED PRESENTATIONS & PUBLICATIONS

Book Chapters

Akoglu, K.; Ayyıldız A. T. (2018). The Role of Symbolic Tools to Overcome Misconceptions about Conditional Probability. *Symposium Book of the 5th International Symposium on Multidisciplinary Studies (ISMS'18), Ankara.*

Journal Articles

Akoglu, K., Lee, H., Kellogg, S. (2019). Participating in a MOOC and a Small Learning Community: How a Blended Approach to Online Learning Makes a Difference. *Journal of Technology and Teacher Education (JTATE). 27*(2), 129-163.   (SCOPUS)

Akoglu, K. (2018). Teaching Statistics through Data Investigations in Gerontology Undergraduate Education. *Journal of Applied Sciences of Mehmet Akif Ersoy University (MAKU)*, *2*(2), 28-36.   (ULAKBİM)

International and National Presentations

Akoglu, K.; Lee, H. (2019, September 26-28). Blending Online Coursework and Small Learning Communities to Support Professional Growth in Teaching Statistics. *4th International Symposium of Turkish Computer and Mathematics Education (TURCOMAT '19), İzmir.*

Akoglu, K.; Batur, A.; Topan, B.; Ozmen, Z.M.; Guven, B. (2019, April 12-14). A Cross-National Comparison of Statistics Curricula. *International Conference on Science, Mathematics, Entreneurship and Technology Education (FMGTEK '19), Izmir.*

Akoglu, K.; Ayyıldız A. T. (2018). The Role of Symbolic Tools to Overcome Misconceptions about Conditional Probability. *Symposium Book of the 5th International Symposium on Multidisciplinary Studies (ISMS '18), Ankara.*

Akoglu, K.; Lee, H. (2017, May 15-18). A Networked MOOC-Ed Project: Examining the Impact of professional Development in Developing the Practices of Teachers of Statistics. *United States Conference on Teaching Statistics* (*USCOTS '17), Philedelphia, PA, USA.*

Lee, H., Lovett, J., Casey, S., Hudson, R., Mojica, G., Azmy, C., **Akoglu, K.** (2017, May 15-18). Bringing Data and Tools into Classrooms Through Online Large-Scale Teacher Education. *United States Conference on Teaching Statistics* (*USCOTS), Philedelphia, PA, USA.*

Akoglu, K. (2017, January 4-7). The Role of Technology in Overcoming the Common and Resistant Misconceptions about Probability. *Presentation at Joint Mathematical Meeting (JMM), Atlanta, GA, USA.*

Akoglu, K.; Evans, M.A.; Huang, L. (2016, April 8-12). Teachers' Perceptions of the Relevant Advantages to adopting Learning Games as Instruction-as-Usual. *Presentation at annual meeting of American Educational Research Association (AERA), Washington, DC, USA.*

Akoglu, K. (2016, July 24-31). A Framework to Guide Task Development for Overcoming Cognitive Issues in Learning Conditional Probability. *Presentation at TSG 21: Mathematical applications and modeling in the teaching and learning of mathematics, the 13th International Congress on Mathematical Education (ICME), Hamburg, GERMANY.*

State & Regional Presentations

Akoglu, K. (2016, March 5-6). A Framework about Using Digital Simulation Tools and Task Development to Overcome the Cognitive Issues about Learning of Conditional Probability. *Invited Presentation at the Annual meeting of American Mathematical Society (AMS), Athens, GA, USA.*

Local Academic Presentations

Akoglu, K. (2017, April 7). A MOOC and PLC: Blending Two Professional Development Models to Enhance Teaching Statistics. *Presentation at annual STEM Education Research Symposium of North Carolina State University (NCSU), Raleigh, NC, USA.*

Akoglu, K. (2016, April 22). Teachers' Perceptions of the Relevant Advantages to adoptingLearning Games as Instruction-as-Usual. *Presentation at annual STEM Education Research Symposium of North Carolina State University (NCSU), Raleigh, NC, USA.*

Akoglu, K. (2015, March 20). The Role of Learning Games in Enhancing Students' Understanding of Arithmetic Mean and Distribution. *Presentation at annual STEM Education Research Symposium of North Carolina State University (NCSU), Raleigh, NC, USA.*

Akoglu, K. (2014, May 6). Designing Simulation Tasks to Overcome the Cognitive Issues about Conditional Probability. *Presentation at annual STEM Education Research Symposium of North Carolina State University (NCSU), Raleigh, NC, USA*

Akoglu, K. (2013, August 20). Conditional Probability Tasks for High School Students. *Presentation at PTMT Project Summer Institute, NC State University, Raleigh, NC.*

Akoglu, K. (2013, August 20). Engaging Probability Tasks for Teaching Probability in High School. *Presentation at PTMT Project Summer Institute, NC State University, Raleigh, NC.*

Manuscripts in Progress

Akoglu, K., Lee, H. (In Progress) The Examination of Teachers' Growth through Lived Experiences in a Blended Professional Development Experiences. To be submitted to *Journal of Teacher Education (JTE).*

Mojica, G., Lee, H., **Akoglu, K.,** Azmy, C., Mutlu, A. (In Progress). A Comprehensive Analysis of Qualitative Data in Teaching Statistics through Data Investigations (TSDI) MOOC to Understand the Role of Online PD Environments to Overcome Teaching Statistics Difficulties. To be submitted to *Computers & Education (CE)*

Akoglu, K. (In Progress) The Role of Data Visualization and Modelling Tools to Overcome Preservice Mathematics Teachers' Teaching Statistics Anxiety. To be submitted to *Statistics Education Research Journal (SERJ)*

RESEARCH EXPERIENCE

NC State University, Raleigh, NC, USA   2012-2018

Research Assistant

  NETWORKED MOOC-Ed Project, P.I. Hollylynne Lee

  Collaborators: Dr. Hollylynne Lee (NC State University)

Recruit professional learning teams (PLTs), include team leaders (from former TSDI MOOC-Ed participants) and team members (from present TSDI MOOC-Ed participants).

Collect data from PLT meeting observations, statistics tasks uploaded by participants, and interviews.

Analyze both quantitative and qualitative data and write up for doctoral dissertation, conferences and journals.

Online Open Courses for Educators (MOOC-Ed) Project funded by Hewlett Foundation, CI. Glenn Kleimann

Collaborators: Drs. Glenn Kleiman, Alan Maloney, Jere Confrey, Hollylynne Lee, Dicky Ng, Nicole Fonger (building on work by Drs. Nicole Panorku and Kosze Lee)

- Design content and facilitate the courses on Statistics.
- Develop tools to support mathematics educators in task related assignment.
- Collect data to document participants' understanding of LTs in a MOOC-Ed.
- Research on the effective design of the MOOC-Ed.

GAMES Project: Developing and Using Learning Games in Middle School Mathematics Classrooms, P.I. Michael A. Evans

Collaborators: Dr. Michael A. Evans (NC State University)

- Adapt and conduct observation and interviews with participant teachers in rural Virginia middle schools.
- Analyze both quantitative and qualitative data and write up for conferences and journals.

Preparing Teaching Mathematics with Technology (PTMT) Project, CI. Hollylynne Lee, Karen Hollebrands, Allison McCulloch

Collaborators: Drs. Hollylynne Lee (NC State University), Karen Hollebrands (NC State University), Allison McCulloch (NC State University)

- Conducted literature review on the role of technology in teaching mathematics (specifically for Statistics and Probability subjects).
- Analyze quantitative data for project publications.

Clemson University, Clemson, SC, USA   2009 – 2010

Research Assistant

- Assisted faculty in a medical sociology research, examining the connections between immunization and neuro-immunological diseases.

- Collected and analyzed data in a departmental project about cross-cultural perceptions about graduate study in the U.S.

TEACHING EXPERIENCE

Bogazici University, Istanbul, TURKEY

The Department of Mathematics and Science Education

Full Time Faculty   *2020-present*

- Teaching an undergraduate level course (SCED 301: Inferential Statistics)
- Teaching an undergraduate level course (SCED 330: Teaching Thinking)

Part Time Instructor   *2019-2020*

- Teaching two sections of an undergraduate level course (SCED 470: Computer Assisted Mathematics Education)
- Teaching an undergraduate level course (SCED 354: Teaching Statistics and Probability)
- Teaching an undergraduate level course (SCED 444: Applied Research in Matheatics and Science Education)
- Supervising senior students in their school experience (SCED 432: Practice in Teaching Mathematics)

Bahcesehir University, Istanbul, TURKEY

The Institution of Educational Studies

Part Time Instructor   *2019-2020*

- Teaching a PhD level course (ELT 6027: Instructional Technologies for SLE)
- Teaching a PhD level course (EDT 6116: Cognition, Learning & Technology)
- Teaching a master's level course (EDE 5111: Instructional System Design)

MEF University, Istanbul, TURKEY

The Department of Elementary Mathematics Education

Part Time Instructor   *2019-present*

- Teaching an undergraduate level course (MATH 231: Analytical Geometry)
- Teaching an undergraduate level course (MATH 237: Probability & Statistics)
- Supervising senior students in their school experience (EDS 405:Internship II)
- **Teaching an undergraduate level course (EDS 206: Instructional Technology and Material Design)**

NC State University, Raleigh, North Carolina, USA   2015-2017

Designer, Facilitator, Teaching Assistant

- Course 1: EMS-ST 519 - Teaching and Learning of Statistical Thinking (Spring 2016-Spring 2017) *Co-design content and co-facilitate the course, building on principles of effective online learning.*
- Course 2: EMS 472 - Teaching Mathematics Topics in Senior High School (Fall 2015) *Assisting faculty in course work.*
- Course 3: TSDI MOOC – Teaching through Data Investigations Massive Online Open Course (Fall 2016) *Co-design content and co-facilitate the course, building on principles of effective professional development and online learning.*

Nesin Mathematics Village, Izmir, Turkey   Summer 2018

Instructor

- Course: Mathematics with Algorithms *Co-designed the course with Dr. Tulay A. Akoglu*

Kucukdalyan Mahmut Yarim Middle School, Antakya, Turkey   2008-2009

Mathematics Teacher

- Designed and taught two courses for middle school students.

PROFESSIONAL SERVICE

SERVICE TO THE INSTITUTIONS

Academic Service

Workshop/Seminar

- Assisted to organize seminars and workshops to mathematics educators on teacher education preparation for PTMT and GAMES projects. North Carolina State University (2013, 2014)

Mentor/Supervisor

- Supervised five student teachers, graduated from North Carolina State University Mathematics Education in Wake County, NC, USA (2015-2016)

SERVICE TO THE PROFESSION

Conference Proposal Reviewer

- ICME Conference Proposals (2016)

- NCTM Research Conference Proposals (2016)
- USCOTS Conference Proposals (2017)
- TURCOMAT Symposium Proposals (2019)

Journal Reviewer

Co-Editor
- STEW (Statistics Education Web) – American Statistical Association (ASA) (2015-2018)

Reviewer/Referee
- JSE (Journal of Statistics Education) (2018 - Present)
- PAU (Pamukkale Üniversitesi Eğitim Fakültesi Dergisi) (2020)

SERVICE TO THE COMMUNITY
- Editorial Member and Writer (2005-2013), Kalem Literature and Art Magazine, Ankara
- Playwright (2012), 7th Summer Theatre Festival, Antakya
- Voluntary Staff (2010), YMCA Day of Action, Reconstructing Childcare Center, Clemson, SC
- Voluntary Story Reader (2009), 2nd Antakya Literature Days, Antakya
- Voluntary Staff (2005), 9th Movies on Wheels European Movie Festival, Ankara

IT & PROGRAMMING SKILLS

Educational Software
- Dynamic Statistical Software: TinkerPlots, Fathom, CODAP
- Dynamic Geometry Software: Cabri, Geometer's Sketchpad
- Dynamic Algebra Software: GeoGebra

Statistical Analysis
- R, SPSS, STATA, StatCrunch, SPSS, Tableau

Computational Knowledge Engine
- Wolfram Alpha, TUVA, GapMinder

Word Processors
- Microsoft Office and Excel
- Libre Office

Digital Typesetting
- LaTeX

Learning Platform

- Moodle
- BlackBoard
- Itslearning

SCHOLARSHIPS, AWARDS, and HONORS

Awards and Honors

- North Carolina State University Graduate Student Support Plan Award (2012-2017)
- Clemson University Graduate Student Support Plan Award (2009-2010)
- The Republic of Turkey Prime Ministry Higher Education Scholarship (2002-2006)
- Ugur Mumcu Arastirmaci Gazetecilik (UMAG) Creative Writing Seminar Attendance Scholarship (2002-2004)
- Cagdas Yasami Destekleme Dernegi (CYDD) Higher Education Scholarship (2002-2005)

Travel Grants

- NC State University Graduate Student Travel Stipend for USCOTS (2016) ($ 1500)
- NC State University Graduate Student Travel Stipend for AMS Conference (2016) ($ 1000)
- NC State University Graduate Student Travel Stipend for JMM Meeting (2016) ($ 1000)
- The William and Ida Friday Institute for Educational Innovation Travel Stipend (2016) ($1000)

ORGANIZATIONAL MEMBERSHIPS

- American Educational Research Association (AERA)
- Society for Industrial and Applied Mathematics (SIAM)
- National Council of Mathematics Teachers USA (NCTM)

LANGUAGES

- Turkish – Native
- English – Fluent
- Arabic – Intermediate