

ODTÜ RESEARCH FOR SOCIETY

HORIZON 2020

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ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY





Dr. Evrim BARAN

“GOING MOBILE IN TEACHER EDUCATION:
PREPARING TODAY’S TEACHERS FOR
TOMORROW’S CLASSROOMS”

Field of Research: Technology for Education

Prominent Project: TeachEdMobile

Funding Scheme: FP7-PEOPLE-CIG

Project Coordinator: Dr. Evrim BARAN

Project Budget: 100,000.00 EUR

Dr. Baran is the coordinator of the first Marie Curie Career project carried out in the Faculty of Education in ODTÜ. The project will run between 2013 and 2016, The idea stemmed from the need of Europe to equip its young population with digital competencies in order to gain and maintain its competitive advantage in the global economy. This need clearly required a concerned research effort in preparing future teachers with necessary skills to integrate mobile applications into earning and teaching settings. Main purpose of this project is to provide, through research and development, methodological and curricular support to teacher educators so that they have research-informed resources and curriculum or the integration of mobile applications into their teacher education programs. This project aims at addressing this need and advancing. The evidence-based knowledge on "teacher education" and "mobile learning" in Europe.

Dr. Evrim Baran received her Ph.D. from Iowa State University, USA, Curriculum and Instructional Technology Department and Human Computer Interaction Graduate Program and her Postdoctoral fellowship from University of British Columbia, Canada, Curriculum and Pedagogy Department.

Dr. Baran conducts her studies in the fields of teacher education, learning technologies and human computer interaction. Going Mobile in Teacher Education funded by the European Commission Marie Curie Career Integration Grant and the Investigation of the Affordances and Pedagogical Potential of Educational Mobile Applications funded by ODTÜ Scientific Research Project Grant are two of her prominent projects.



ÖZTEK - Investigation of the Teaching Process of Basic Essential and Cognitive Concepts to Special Education Students and its Effectiveness using Technology-Enhanced Learning Environments

Project Coordinator: Prof. Dr. Kürşat ÇAĞILTAY	Funding Scheme: The Scientific and Technological Research	
Council of Turkey (TÜBİTAK)	Project Budget: 106,000.00 EUR	oztek.metu.edu.tr

“HIGH-TECH SPECIAL EDUCATION WILL MAKE OUR CHILDRENS’ WORLD BETTER”

Even though the rates of special education services those children with mental disabilities benefit from have increased in recent years, the offering of effective educational services and the use of innovative instructional materials have not reached the desired level in Turkey. ÖZTEK project intends to develop innovative, technology-enhanced learning environments and to investigate the effectiveness of such learning environments.

Within the scope of ÖZTEK, various instructional technologies focusing on special education, which will be unique in terms of innovation regarding mentally handicapped children, will be put forward. Throughout the project the following products will be developed (2012-2015):

- Smart/interactive toys,
- Interactive multi-touch table/board, which eliminates the keyboard and mouse requirement
- Interactive multimedia educational software that will detect body movements

A project portal will be developed to provide individualized training modules in accordance with the developmental levels of special needs students. The primary goal is to develop and produce technology-enhanced learning programs in the light of the designated special education curricula, for teaching basic essential and cognitive concepts. ÖZTEK is designed and developed as interactive environments. The developed technologies will be accessible not only to schools but also to everyone including home users who own a personal computer and have internet access.



"Early Sensitivity of Mono-lingual Turkish Infants for Vowel-harmony and Word Stress" - BEBEM

Project Coordinator: Dr. Annette HOHENBERGER Funding Scheme: TÜBİTAK Project Budget: 55,000.00 EUR
bebem.ii.metu.edu.tr

“BABIES ARE CONTRIBUTING TO SCIENCE AND GETTING AN “ODTÜ DIPLOMA”!”

This project (2011-2013) is the first large-scale project in Turkey on early sensitivity to vowel harmony. It aims to find out whether 6- and 10-month old Turkish infants are already sensitive to vowel harmony and word stress in their native language. Little experiments with young children are carried out, in which they are listening to vowel-harmonic vs. vowel-disharmonic words (stems+suffixes) and how long they attend to those two different categories of words is measured. Their ability to segment words from their sentential contexts on the basis of word stress and vowel harmony is also studied. For this purpose, within the project families with young infants who attend our experiments at ages of 6 and 10 months, were invited.

Our results indicate that 6-month old mono-lingual Turkish infants already distinguish between vowel-harmonic vs. vowel-disharmonic words and prefer harmonic ones whereas 10-month olds prefer disharmonic ones. This finding is consistent with a developmental trajectory where first the dominant phonological pattern is extracted from the input and then deviations from the expected pattern are detected. The project found an overwhelming echo and support from parents with young infants who attended the various studies in great number (over 200 infants). As an acknowledgment of their attendance, the projects’ baby-scientists were awarded “ODTÜ diploma”’s depicting them with a little doctoral cap. The study shows that in the first year of life, long before they utter their first words, infants are actively engaged in language acquisition and lay the foundations for their later language productions.



Commagene Nemrut Conservation Development Program (CNCDP)

Program Coordinator: Dr. Neriman ŞAHİN GÜÇHAN | **Funding Scheme:** Turkish Ministry of Culture and Tourism

Project Budget: 932,000.00 EUR | www.nemrut.org.tr

“TRACING COMMAGENE: WHERE EAST AND WEST, NATURE AND STRUCTURE, AND LOCAL AND GLOBAL MEET.”

The Tumulus of Mount Nemrut, discovered in 1881, has been the subject of archaeological research and excavations for more than a hundred years. In 1986, Mount Nemrut was declared an Archaeological Conservation Area and inscribed into the UNESCO World Heritage List. Between 2006 and 2013, Orta Doğu Teknik Üniversitesi (ODTÜ) prepared the Commagene Nemrut Conservation Development Program (CNCDP), consisting of projects regarding the conservation of the Nemrut Tumulus and problems regarding the development of the Adiyaman Province.

The primary aim of CNCDP is conservation, interpretation, presentation and sustainability of the Tumulus of Mount Nemrut, as well as the archaeological sites within the boundaries of the Nemrut Mount National Park, to preserve their architectural, archaeological, historical, economic, social, cultural and ecological values as a whole, according to international conservation principles.

CNCDP includes various design and implementation projects and an integrated Conservation Management Plan (CMP) to be executed by the Ministry of Culture and Tourism and the Adiyaman Governorate. The CMP creates a cultural route, an itinerary based on the various destinations with tourism qualities in Adiyaman.

When the projects defined under the vision of CMP are realised, by following the traces of Commagene, visitors will become acquainted not only with Tumulus of Mount Nemrut itself, but also with the material and immaterial features of the ancient and existing context.



**The Graduate Program in Settlement Archaeology & TAÇDAM
(ODTÜ-Centre for Research and Assessment of Historical Environment)**

Providing sustainability in cultural heritage management and educating people whose lives are affected by valuable archaeological remains

www.sa.metu.edu.tr

This program and centre are touching the hearts, minds and souls of thousands of people with more than a dozen of projects in less than 15 years!

The Graduate Program in Settlement Archaeology has initiated and successfully completed many archaeological and cultural heritage management projects all across Turkey from the south-eastern Keban-Ilisu-Karkamış Dam project areas, and Kahramanmaraş (Domuztepe) in the east to Burgaz near Muğla in the west, and Tokat (Komana) in the north of Ankara in central Anatolia. These projects expand through a wide chronological sequence beginning as early as the Neolithic period in 6500 B.C. reaching to the Ottoman period encompassing 10,000 years of Anatolian heritage. Each project aims at an explicit interdisciplinary emphasis on theory, method and interpretation through the study of the relationships between material culture, cultural modifications to landscape and the natural environment. Their mission is to advocate sustainability in cultural heritage management and to educate people whose lives are affected by valuable archaeological remains.

The Graduate Program in Settlement Archaeology was built on a strong background, deriving from an early onset of cultural heritage management activities in areas under the threat of modern development, to provide a unique interdisciplinary research environment in collaboration with TAÇDAM (ODTÜ-Centre for Research and Assessment of Historical Environment), ODTÜ Archaeology Museum, ODTÜ Environmental Archaeology Unit, and the university's renowned natural science and engineering disciplines. With its interdisciplinarity, wide chronological and geographical interests, contemporaneous approaches in method and theory and the international faculty, ODTÜ's Settlement Archaeology Program provides a perfect environment for collaborative research.



Environmental Archaeology Research Unit

Conducting scientific research on animal and plant remains recovered from archaeological sites in the pursuit of reconstructing past economies and human relations and impact to their natural environment and vice versa.

www.earu.sa.metu.edu.tr

Providing the grounds for strong interdisciplinary research with the collaboration of scholars from various scientific disciplines while training graduate students in order to contribute to the field of environmental archaeology

Environmental archaeology has widened the spectrum of inquiries that can be addressed for materials recovered from archaeological excavations. In the Unit, research is mostly directed towards animal and plant remains and aims to reconstruct ancient environments, economies and the role animals and plants in past human cultures. Despite the valuable contribution of such research, there has been lack of specialists and research facilities in Turkey. The Environmental Archaeology Research Unit was established to provide guidance via collaborative research to archaeological excavations in Turkey, which is ca.300 in number today.

Animal and plant remains recovered from various archaeological sites ranging from Neolithic to Ottoman periods in Turkey are under research in the Environmental Archaeology Research Unit at ODTÜ. The current archaeological sites include Şapınowa (Çorum), Pompeiopolis (Kastamonu) and Komana (Tokat) in the Black Sea, Kerkenes (Yozgat) in Central Anatolia, Aşvan (Elazığ) in Southeastern Anatolia, Burgaz (Muğla), Tepecik (Aydın) and Ulucak (İzmir) in Western Anatolia, for all of which support has been granted from university and national - namely TÜBİTAK - funds and laboratory facilities are provided by the President's Office of ODTÜ.



ODTÜ - CES Centre for European Studies

Promoting the development of an interdisciplinary environment conducive for studying and researching the process of European integration in a comparative manner.

Coordinator: Prof.Dr. Atila ERALP www.ces.metu.edu.tr

“A European Success Story in Turkey”

The Centre for European Studies was founded in 1997 by the staff of the Faculty of Economic and Administrative Sciences at ODTÜ in order to promote the development of an interdisciplinary environment conducive for studying and researching the process of European integration in a comparative manner.

The Centre has an interdisciplinary academic composition and collaborates closely with the departments of International Relations, Political Science and Public Administration, Economics and Business Administration. The Centre contributes extensively to two M.Sc. Programmes, one in “European Studies” since 2001 and the other in “European Integration” since 2006. Several courses taught in these programmes have been awarded “Jean Monnet Permanent Courses” and “European Modules” titles given by the European Commission and the director of the Centre, Prof. Dr. Atila Eralp, holds a “Jean Monnet Chair” on Politics of European Integration since 2002. Dr. Eralp’s activities were characterized as one of the twenty “European Success Stories” by the European Commission in 2008.

The Centre has participated as a coordinator and partner in numerous transnational research projects. CES-ODTÜ was awarded “CES-CER: Centre for European Studies Comparative European Research: Enhancing the Comparative Research Capacity” within the EU 6th Framework Programme in 2005. CES-CER project focused on three main research themes:

1. Europeanization: Transformation and Transnationalization (the impact of European Integration and Europeanization comparatively on European economies and societies, immigration, gender equality, labour markets, justice and home affairs, democratic consolidation, transformation of the role of supranational, national levels)
2. Governance (institutional design, policy performance, and politics of economic, social and territorial governance, public administration reform in a comparative perspective and issues of economics, social and territorial cohesion)
3. Integration (enlargement of the EU, EU’s neighbourhood policies, socio-economic and political transformation and integration within the Black Sea, the Caucasus, the Balkans and the Eastern Mediterranean, Neighbourhood and Cross Border Issues).

Research at the Centre attributes special emphasis on Turkey’s potential contribution to the development of neighbourhood relations, conflict resolution, energy, and cross border issues within these regions.

The Centre developed research teams around such themes with the involvement of faculty members, research fellows and Ph.D. students. CES became partner in several major FP6 and FP7 projects, such as EU-CONSENT/FP6, EU4SEAS/FP7, FESSUD/FP7, FREE/FP7, SAHWA/FP7, EU Global/FP7. It also participated in several other important transnational projects such as LISBOAN, SInAN, ACCESS-TR, EU-CAMP and PEGASUS. The members of the Centre are currently involved in five FP7 projects.

The Centre has also cooperated with prominent European research centres such EUISS to organize conferences and workshops and has been a member of major European Academic networks such as TEPSA, EuroMeSCo, ECPR and UACES.



ODTÜ-TEKPOL Research Centre for Science and Technology Policy

The Centre supplies science and technology policy-related human capital for the government bodies, agencies and other related organisations and conducts research in science, technology and innovation policy issues.

Coordinator: Prof. Dr. Erkan ERDİL [stps.metu.edu.tr](https://metu.edu.tr)

“ A major hub in the national network of innovation policy of Turkey”

Acknowledged education programs

Since its establishment in 1997, nearly 200 students have been graduated from TEKPOL's MSc program and 11 students have obtained their PhD Degrees. Many of these students are now employed in major governmental institutions, such as the Ministry of Science, Industry and Technology, the Ministry of Development, The Scientific and Technological Research Council of Turkey (TÜBİTAK), the Undersecretariat of Defence and various development agencies. The education program has hosted students who work for important private sector companies such as Microsoft, Turkcell and Philips. Students who pursued further studies undertook positions in distinguished programs such as the Technology and Policy Program of MIT, Sussex Policy Research Unit (SPRU) of Sussex University, UNU-MERIT of Maastricht University; Innovation, Management, Policy Department of Manchester University and CIRCLE of Lund University, Kennedy School of Government of Harvard University.

A solid research portfolio

ODTÜ-TEKPOL has a solid experience in commissioned research as well as national and international projects both as coordinator and partner. In the last five years, eight large and medium-scale and more than ten small-scale projects were successfully completed. The Centre has vast experience in science, technology and innovation related issues in general. Specifically, the Centre has developed expertise in science, technology and innovation (STI) policy evaluation and assessment of governmental R&D incentive programs, technology transfer, foreign direct investment, industrial clustering, high-tech industry studies such as defence, automotive and ICT and more traditional industries such as furniture and machinery.

A major hub in the national network of innovation policy of Turkey

Through joint projects, conferences, consultancy activities and alumni placement, ODTÜ-TEKPOL has become a central node in the national network of science, technology and innovation policy. The Research Centre has research oriented linkages with ministries such as Ministry of Development, the Scientific and Technological Research Council of Turkey (TÜBİTAK), the Undersecretariat of Defence, the Turkish Patent Institute (TPE), the Technology Development Foundation of Turkey (TTGV), major defence industry companies such as TAI (Turkish Aerospace Industries) and ASELSAN (a company of Turkish Armed Forces Foundation), development agencies, prominent industrial districts of Ankara and Technology development zones such as ODTÜ-TECH and CYBERPARK.

A wide international network

ODTÜ-TEKPOL has ongoing collaborations with many established international universities, research institutes, organisations and major international networks such as European Commission, UNU-MERIT, GLOBELICS, EUROLICS, IPTS-JRC, Telecom Ecole de Management, FEMISE, Department of Technology and Management of Eindhoven University and Economic Research Forum (ERF).



ODTÜ – KORA Centre for Black Sea and Central Asia

Developing a potential for interdisciplinary research on the post-Soviet region in order to understand the new geography and related conceptual frameworks

Coordinator: Prof. Dr. Ayşe AYATA kora.metu.edu.tr

“KORA is the first of its kind in Turkey, both in terms of its area of concentration of the Black Sea and Central Asian states and also as a centre of regional studies.”

The Centre for Black Sea and Central Asia (KORA) was established in 1992 at ODTÜ with the aim of developing a potential for interdisciplinary research on the post-Soviet region in order to understand the new geography and related conceptual frameworks. For nearly two decades, KORA has tried to establish the basis of scientific enquiry by bringing together a number of social and natural scientists possessing both the language and academic skills necessary for disciplinary and inter-disciplinary research. Since its establishment, KORA has accumulated experience in the development of research projects, organization of workshops and conferences on its region of concern.

RESEARCH EXPERIENCE

KORA has conducted research projects both on its own and in collaboration with a number of national and international partners. KORA has extensive international experience with international research projects under the FP6 and FP7 both as coordinator and partner. Besides its academic research activities, KORA cooperates with the private sector, governmental institutions, and civil society institutions such as NATO, UNESCO, UNHCR, UNDP, IOM, WB, and British Council. KORA provides consultancy to the private sector and is particularly specialized in development studies and social impact assessment. Each year, KORA conducts several research projects funded by the University. Within Turkey, KORA has worked in collaboration with several other universities, integrating their academic staff and research assistants into the work carried out in order to increase their experience in research projects, and to ameliorate their academic qualifications.

KORA AFFILIATED STAFF

KORA's research projects are initiated and conducted by its highly qualified staff having wide regional expertise and intensive fieldwork experience. Our core and affiliated staff are from the departments of Political Science, Sociology, International Relations, Economics, History, Educational Sciences, City and Regional Planning, Petroleum and Natural Gas Engineering, Environmental Engineering and Oceanography of ODTÜ.





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