



AUC International Conference on Research in African Challenges (ICRAC)

Track G: Combating Poverty through education

SUB-TRACK G4: QUALITY EDUCATION AND TECHNOLOGICALLY ENHANCED LEARNING

Chair: Dr. Heba Eldeghaidy, Dr. Gehan Osman

Co-chair: Florence Ssereo

Poverty and education in Africa form a vicious cycle that prevents the continent and many of its inhabitants for achieving its potential for development and prosperity. An educated citizenship is vital for sustainable economic growth and the reduction of poverty and unemployment. In many African countries, large portions of the children remain out of school. The situation is even more dismal for girls and youth in their late teens. The rate of gross enrolment in tertiary education in sub-Saharan Africa is the lowest in the world. Although tremendous progress has made towards the education for all goals, the road to the full attainment is still long.

However, international organizations and reports imply that the full impact of education for all (EFA) cannot be realized with sufficient attention to quality and not just access. Student test scores by global standards lag behind, and research implies that many of those children who do go to school do not master the basic literacy, numeracy, and life skills. An increasing body of evidence implies that quality education needs requires focus on variables that influence the value of student-teacher experiences within the classroom, such as teacher quality, access to resources, policies, language of instruction, pedagogy, learning time, and leadership, among others.

Many believe in the potential of Information and communication technologies (ICTs), and especially mobile technologies, to enable more equitable ubiquitous access to education at all levels as well as improve the quality of the learning opportunities experiences by students and teachers through more cost-efficient innovative models and modalities. The variation in technologies integrated address local challenges such as scarce internet connectivity and access to electricity, yet much needs to be done towards the development of national policies and the capacity building of stakeholders to fully leverage the power of ICTs to advance educational attainment in Africa.

International organizations predict that the situation will only get worse due to the exponentially growing school-age population. Unless African countries address issues related to education access, quality, and learning achievement, underdevelopment will continue to plague its people, denying a whole generation of the opportunity to rise out of poverty. Factors related to educational expenditure, teacher education, educational policy, and modern localized curricula among others are all at play and



need to be examined; addressing yet another important deficit of African educational systems - namely the absence of data to access progress and impact.

Biographies

Heba EL-Deghaidy is currently chair of the Department of International and Comparative Education at the Graduate School of Education. EL-Deghaidy is an associate professor of science education and leads the STEAM education initiative as an international approach to an interdisciplinary learning model. Her doctoral degree in science education comes from the University of Birmingham, UK. She was the PI of the bilingual STEAM education project funded by British Gas. EL-Deghaidy is co-PI for an Erasmus funded project called School and University Partnership for Peer Communities of Learners (SUP4PCL).

Before coming to AUC, EL-Deghaidy was an associate professor of science education at the Faculty of Education at Suez Canal University. She served as a coordinator for two TEMPUS projects, funded by the European Commission on Education for Sustainable Development. She worked closely with pre-service science teachers, and she trained and taught in-service science teachers at the graduate level. Her work involved training teachers and university faculty members on contemporary pedagogical strategies.

Along with her teaching experience, EL-Deghaidy brings a wide range of professional experience, having served on various national and international committees and societies. Of the most prominent international societies in science education is the National Association for Research in Science Education (NARST) for which she served as a strand coordinator from 2012 to 2014 and is currently serving as a member of the Publication Advisory Committee, for a three-year term from 2015 to 2018. She was invited as a guest speaker at the 65th Korean Association for Science Education International Conference 2014 and at the International Seminar of Science Education Research Centre, Korean National University of Education. She was also a keynote speaker in 2016 at the first Inter-Regional Research Conference on Science and Mathematics Education: Interfacing Arab and European Science and Mathematics Education Research, at AUB.

Part of her professional service includes reviewing manuscripts and proposals for international journals with high impact factors such as *Computers and Education*, *Education and Environmental Education Research* and others, in addition to participating in international conferences.

Gihan Osman, Assistant Professor: is an assistant professor of instructional design and technology at the Graduate School of Education (GSE's) and the Center of Learning and Teaching (CLT) at the American University in Cairo (AUC).

At AUC, she lead the University's blended learning initiative from 2014-2018. In that role, she focused on faculty awareness and professional development, the design of blended and online courses, and coordinating the evaluation and vetting of blended courses. She has spearheaded GSE's data-driven project to take its teacher professional diplomas online. She is currently the principal investigator on a project with UNESCO focusing on creating open education resources for teacher professional development in the area of information and communication technologies. The courses she teaches focus on the research as well as integration of technology and innovation in reforming education.



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Osman brings a variety of experiences to the Graduate School of Education. Previously Osman worked as the associate dean for research at the Graduate School of Business at the Arab Academy Graduate School of Business (Cairo Branch) and as the deputy director of international and doctoral programs at the same school. Before that, she has worked as an instructor, designer, researcher, and evaluator in a number of universities including Indiana University Bloomington, the University of South Florida, and the Arab Academy for Science and Technology. She started her career over 15 years ago as a Grade 4 teacher in Egypt, but has since then taught in diverse contexts: at the graduate and undergraduate levels; in public and private institutions, in Egypt and the United States; in both face-to-face and web-based educational settings. She has also worked on a number of international projects and grants that focus on the design of virtual environments such as the Learning to Teach with Technology Studio, an online teacher professional development environment, and a cross-cultural development project to build learner-centered distance education capacities in Azerbaijani universities.

Osman has her PhD and MSc in Instructional Systems Technology from Indiana University Bloomington, an MA in TEFL from the American University in Cairo, and a BA in English from Alexandria University.

Osman's Research interests include, educational reform and change management, organizational learning, technology integration, as well as the impact of innovations, such as the open education movement and social entrepreneurship, on education. Her current research focuses on the use of open educational resources for the professional development of teachers, and teacher education with reference to 21st century skills and digital literacies.

Florence Ssereo is a programme specialist in the Teacher Policy and Development Section in the Division for Planning and Development of Education systems at UNESCO. She served as an Education programme specialist in two field offices in Africa: at the Addis Ababa Cluster Office where she covered Ethiopia and Djibouti from 2004 to 2008, and at the Dar-es Salaam Cluster office where she covered Tanzania, Madagascar, Mauritius, Seychelles and Comoros from 2008 to 2010. In the field Dr. Ssereo was responsible for implementation of programmes in all sublevels of education in the cluster countries. Her main tasks consisted of providing policy advice; facilitating policy dialogue with key stake holders; participating in monitoring projects such as annual sector review meetings and field visits; assisting education sector-wide programming; networking and building public/private partnerships for EFA; and coordinating of the Education Development Partners Group and leadership in thematic technical working groups on education and representation in UNDAF processes. She also helped manage implementation of the Basic Education for Africa programme in Eastern Africa Region, a project which prioritized capacity development and curriculum for quality. Prior to joining UNESCO, Florence worked as a high school chemistry teacher in Uganda, a co-Secretary General of the International Catholic Students Movement— an NGO that cooperates with UNESCO and promotes international student solidarity and intercultural exchanges involving over 90 countries. Florence holds a PhD in social science, a BSc in natural science, a post-graduate diploma in education, a MA degree in sociology of defence and strategy, a MA in conflict resolution, a post-doctoral diploma in curriculum design and development, a post-doctoral certificate in education policy and planning and a post-Doctoral certificate in international and comparative education.



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