

**TOWARDS COLLABORATIVE PROGRAMS IMPROVING THE MATHEMATICS TEACHER  
PROFESSIONAL DEVELOPMENT IN AFRICA!**

**PROF. NOUZHA EL YACOUBI**

University Mohammed V Rabat, Morocco

The continent of Africa, is currently striving to achieve the much-needed socio-economic growth via innovations in science and technology. At the heart of science and technology is mathematics! So learning outcomes in mathematics must be good. Unfortunately, the African students' achievements in PISA and TIMSS are poor till now. This comes through some unsatisfactory educational conditions, but essentially through unqualified mathematics teachers. It should be recognized that many African countries have invested heavily in initial teacher education, in different ways according to their membership to the anglo-phone, franco-phone or other educational systems, but many problems occurred in creating teachers' training institutions and also in attracting interesting and motivated students. Moreover, even for African regions having succeeded to provide teachers in the needed number for their countries (like in North Africa and Southern Africa), a little research has been done to assess whether it is producing teachers with knowledge, skills and abilities enabling to form a foundation of schools of a good standard, with high quality students level, addressing their low achievement in mathematics. In any case, even if initial mathematics teacher training succeeds to nurture such appropriate characteristics, it remains absolutely essential to prepare teachers for the greater challenges of everyday teaching. Thus the Mathematics Teachers Professional Development (MTPD) becomes in the forefront of the new education reforms introduced through the World and Africa in particular was strongly concerned. It is to emphasize that the Mathematics Teachers continuous Professional Development (MTCPD) has been adopted by the various African governments and supported by many international organization like UNESCO NEPAD, USAID, World Bank etc... But the MTCPD programs, in several African countries, have not yet been placed in a strategic position and under relevant policies using innovative practices, letting the sessions be more fruitful, and enough efficient for changing the teachers' Mindset. Nevertheless, a good progress has been registered in some African countries resulting from different approaches in conducting the MTCPD programs. Similarities and differences in the MTCPD formats organized through the continent exist and consist on sessions conducted in the form of teacher workshops in clusters, organized by the Ministry of Education, sessions strengthening teachers' content mastery and pedagogical skills or introducing teachers to ICT and their applications in classroom practices, others initiating into Online courses to be used for continuous professional development of teachers etc....Also projects have been launched through the continent: Strengthening of Mathematics and Science Education in Africa (SMASE); Capacity and Networking Program in the Mathematical Sciences (CANP); Teacher Preparation and Continuing Professional Development in Africa (TPA), and some associations have been created: The Association for Development of Education in Africa (ADEA) etc..... Unfortunately despite all these initiatives, the MTPD programs are not yet responding to the challenges of this 21 Century, so sharing the various experiences, learning from successful programs in similar countries and trying to mix the available successes for a future Pan African MTPD model would be relevant.

**References**

El Yacoubi, N. (2015). *New Reforms to improve Professional Development of mathematics Teachers in Morocco*. International Journal Education Sciences,8(1-ii):199-205.

*Last names of the authors in the order as on the paper*

Luckson , M, K (2015). *Special Issue. Analyses of Mathematics Teacher Professional Development Programs in Selected Developing and Developed Countries: Insights for Quality Mathematics Instruction in Sub-Saharan African Countries*. International Journal Education Sciences, volume 8. Number 1.