

## **What matters for effective mathematics educator: preservice or in-service training?**

### **Abstract**

According to UNESCO (2015), the equity gap in education is exacerbated by the shortage and uneven distribution of professionally trained teachers, especially in disadvantaged areas. Target 4.c (MOI) of the SDG 4 is therefore aimed at substantially increasing the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and Small Island developing States by 2030. It further states that teachers are one of the fundamental conditions for guaranteeing quality education and therefore there is need to empower and adequately recruit, remunerate and motivate professionally qualified teachers and educators, and support them within a well-resourced, efficient and effectively governed systems (UNESCO, 2015). The knowledge of teachers in the last three decades was mainly influenced by a well-known scholar Lee Shulman who categorized teacher knowledge into seven categories among which content knowledge is included. However, much research on in-service teachers focused on the pedagogical content knowledge hypothesizing the mastery of content as much as they are graduated from recognized training institutions. Based on this categorization, the present paper presents an analysis of Rwandan mathematics school subject leaders' Content Knowledge (CK). The presentation is based on partnership established between governmental and nongovernmental institutions led to development and implementation of certified Continuous Professional Development (CPD) programmes for primary and secondary mathematics teachers. The presentation will comprise (i) general introduction relating mathematics teachers' professional development, (ii) description of CPD programmes for mathematics teachers in Rwandan education sector, (iii) school community practices as result of CPD programmes; and (iv) changes in classroom mathematics teaching practices.