Beliefs of secondary school mathematics teachers about problem solving skills and instruction practices

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Problem solving Skill is for long highly considered as a skill that negotiates with the complex demand of 21st century labour market. Its importance is recognized by many countries around the world, including Rwanda. This is reflected in national education systems whereby national curriculums are consistently reviewed with regard to equip young children with problem solving skills at all level of education. Concerning with the case of Rwanda, educational curriculum for pre/primary and secondary levels are developed and reviewed at national level(Rwanda Education Board, 2015). At glance, it is recognized that teachers are the key component in allowing the learning to happen. The literature related to curriculum change points out that belief and perceptions of teachers seem to have considerable effects on the nature of classroom practice which is in line with student's attitudes, beliefs and learning outcomes. Since the launch of the competence based curriculum in Rwanda, few studies if any have been conducted to understand how teachers perceive its requirements. The current study intends to provide insights about how Rwandan mathematics teachers view problem solving in the teaching and learning of mathematics after four years of the use of competence based curriculum that includes problem solving skill among generic skills that learners must acquire during their schooling. Specifically, the study will explore what upper secondary mathematics teachers believe and perceive about (a) Mathematical problem solving (b) Problem solving instructions (C) Problem solving in classroom practice (d) The kind of mathematics instruction emphasized in Rwandan Competence Based Curriculum (e) Difficulties about problem solving. In addition, the study will give insight on the relationship about beliefs and perceptions and classroom teaching practice. A questionnaire, interview and classroom observation will be used for data collection.

Keywords: Problem solving; Mathematics education; Classroom practices; Mathematics teachers.