

**Kihara C.<sup>1</sup>, Otieno, K.<sup>2</sup>, & Masese, L.<sup>3</sup> (2020). Colla-Petitive learning and evaluation Strategies (pedagogies) Integrated with Digital Content for Improved and Sustainable Performance in STEM Subjects**

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**Abstract**

It is practically impossible for any nation to achieve industrial and technological advancement if it fails to implement measures to promote learning of Science, Technology, Engineering, and Mathematics (STEM) in Basic Education. The trend positively correlates adoption of collaborative competence-based curricula in Basic Education with more emphasis on STEM subjects and vibrant growth of the economies of developed countries like Finland, Germany, Singapore, and Japan. Kenya can accelerate its economic growth by adopting and customizing proven interventions to build the capacity of her citizens through effective education. The introduction of the Competency Based Curriculum (CBC) in Kenya is a timely policy intervention. If properly implemented, continuously appraised and customized to suit local needs, the learners stand to reap more benefits and emerge better equipped to tackle development challenges. By emphasizing on developing competencies and collaborative learning in young learners, the learning process becomes more learner-centered helping learners to be creative, selfless, accommodative people of integrity. At independence, Kenya adopted competitive learning system that had been brought by the British and implemented it in her basic education. The system delivered on majority of its objectives, chiefly the stifling of collaboration among learners and promoting the-winner-takes-all ideology. Over the years, research has proven that humanity tends to prosper better through collaboration. Since humans are natively collaborative, it suffices that our education system should promote this trait. Observably, learners prefer activities that pool them into teams for collaborative competition among different groups. An in-house survey by Collanet Africa found out that over 80% of learners will prefer science and mathematics subjects if they like the pedagogies employed by teachers and rewarding scheme adopted by school management. This marked influence should be tapped onto by school boards to create an enabling environment for the implementation of collaborative competence-based learning. The entry of Covid-19 shifts the dynamics on interactive learning and therefore the pressing necessity to incorporate technology in learning. Collanet Africa developed colla-petitive learning pedagogies to help develop interpersonal skills, critical thinking, problem solving, self-efficacy, and enjoy learning of STEM subjects. Some of the successful cases include, Nyakiambi Primary school in Nyandarua County, Vanessa Grant Girls' High School, Kambala Primary School, Ndarugu primary and Kinare Primary School in Nakuru County. The Collanet Africa approach integrates technology to deliver content digitally and learners can move at their pace so they are not left behind as often is the case in most class rooms. The above schools have applied colla-petitive pedagogies have realized improved academic and disciplinary performance.

**Keywords:** Colla-petitive, Pedagogies, Collaboration and Teams