Critical thinking skill gap in the Kenyan educational curriculum: The 21st-Century skills for the Global Citizen.

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ABSTRACT

Across the globe, the learning goals of elementary, secondary, and higher education curricula emphasize the development of the critical thinking approach. In Kenya, the curriculum mentions developing critical thinking as one of its objectives, but a critical review reveals that the education system prioritizes competitive exams and rote memorization over critical thinking and other vital 21st-century skills. In this paper, I argue that educational authorities can achieve this objective if they critically evaluate the purpose of education regularly to ensure that there is an alignment between the stated goals and practice. They also need to make sure that the education they provide leaves no learner behind.

Keywords: Critical Thinking, Community of Inquiry, Enlargement of Mind, Philosophy for Children and Curriculum
INTRODUCTION

Critical thinking (CT) can be defined as a skillful, reasonable thought which brings about good judgment through its use of criteria and because CT is sensitive to a given context and self-correcting. The criteria that are generalizable and important include reliability, relevance, consistency, strength, coherence, evidence, and validity. It involves self-correcting which is the focus on one’s thought processes to discover and rectify weaknesses. Self-correction denotes critical, active and persistent thinking towards improvement. Sensitivity to context is the consideration of specific circumstances, for any special limitations, overall configurations and untranslatability of some meanings during thinking process (Ennis, 2016; Lai, 2011; Lipman, 1988).

Primary and secondary schools are important transition stages to higher education where overt critical thinking skills are demanded. Kantian ‘critical judgment theory’ posits that critical thinking approach is holistic and promotes inquisitive, critical, and active minds (Arendt, 1992). Naturally, all people have the ability to think right from birth. Thinking helps individuals make sense of the world, solve problems, and make decision (Nickerson, Perkins, & Smith, 1985). However, most of the time, our socialization makes it challenging for us to think clearly or introduce bias and prejudice that corrupts our thinking process (Paul & Elder, 2008). To think critically, individuals, both young and old, ought to develop capacities to improve their thinking skills and get rid of negative influences through training (Nickerson et al., 1985).

Advocates of quality basic education do not see schools as places where teachers merely transmit knowledge for students to swallow reflexively, schools ought to be places for questioning and discussing ideas (UNESCO, 2009). A Report to UNESCO (1996) on Education for the Twenty-first Century, by the International Commission, presided by Jacques Delors, states that attitudes towards learning forged in primary school last throughout one’s lifetime (UNESCO, 1996). For several years, there has been growing curiosity and enthusiasm across the world for critical thinking, or more broadly, the idea of introducing principles of philosophizing to learners in primary and secondary schools (UNESCO, 2009). Indeed, the need to stimulate questioning and reflection at a young age within the framework of primary education is increasingly acknowledged globally (UNESCO, 2009).

Education systems in Kenya had undergone several reforms since 1963. For instances, the Ominde Report (1964) on educational goals, the Gachathi Report (1976) on educational objectives and policies, Mackay
Report (1982) on change of curriculum from the 7-4-2-3 to 8-4-4 school system, and Koech Report (1999) on review of national philosophy, policies, and objectives. The national educational and training conference (2003), whose recommendations led to the Sessional Paper No. 1 of 2005, outlined long, medium, and short-term targets for the education sector, which included Education for All (EFA) and the Attainment of Universal Primary Education (UPE) by 2015. However, despite those many reforms that the Kenya education system had undergone since independence, issues on critical thinking skills had not been adequately addressed, even in the newly introduced ‘progressive’ 2-6-6-3 competency-based curriculum, which consists of lower primary, upper primary, lower secondary, and upper secondary schooling.

The Task Force Report on re-alignment of the Education in Kenya 2012 and the Kenya Institute of Curriculum Development (KICD) 2016 on national needs assessment observed that the education systems since 1963 had emphasized the acquisition of knowledge with no pedagogical emphasis on application. This situation has influenced assessment, which mainly tests memorization (Republic of Kenya, 2012; KICD 2016). KICD (2017) and sessional paper No.2 of 2015 report on the introduction of a new competency-based curriculum (CBC) and indict the old 8.4.4 curriculum for encouraging competition for exams; is more of content memorization and reproduction during exams. The teacher was the main source of knowledge and learners were passive participants; it was more rigid in content, learning time and strategies; had little parental engagement and support; focused more on cognitive development; emphasized on schooling and focused on summative assessment (KICD, 2017:12).

Going through these reports, it is clear that 8.4.4 curriculum did not infuse critical thinking skills into teaching and learning at the primary and secondary level.

Both a 2013 survey of organizations in Kenya and across the world by Pearson Foundation Study, Microsoft Partners in learning, and the Society for Human Resource Management and Crockett’s (2016) study on the 21st-century skills for the global citizens reported that the critical thinking approach was the top skills gap for job applicants (Anisa, 2018; Crockett, 2016). According to Crockett (2016), Educational Curriculum Developers across the world should look for solutions and new ways to integrate critical thinking skills approaches, such as creativity, problem-solving, communication, collaboration, analytical thinking, action, ethics, and accountability, into secondary schools curriculum for learners to develop
global awareness and become world citizens with enlarged minds. This paper, therefore, intends to assess the role of critical thinking pedagogy in Kenyan schools’ curriculum. Pedagogy refers to the process, method, theory, and practice of teaching. Similarly, critical thinking pedagogy alludes to educational philosophy, practice, and theory that helps learners develop their consciousness. Teachers are adept at practicing critical pedagogy within a community of inquiry, not when they parade themselves as all-knowing. A community of inquiry exists when individuals reflect and engage others in purposeful discourse that helps them construct individual meaning and mutual understanding.¹

METHODS

This study used a critical analysis method to assess, analyze, and interpret various views on the importance of critical thinking in education. Critical analysis requires reflective thinking, which is thinking about one’s thoughts. It is a process of questioning one's understanding of an issue. Rules of logical thinking (inductive or deductive reasoning) are used to evaluate the validity of results or arguments (Krishnananda, 1992). Therefore it involves identifying arguments or parts of arguments and even stating them in one’s own words while recognizing that there is no single right way to understand and evaluate the truth (Krishnananda, 1992).

The study identifies various weaknesses in Kenya’s approach to teaching critical thinking and its impact on learners. Using the critical analytical approach, which involves breaking down philosophical issues through speculation and conceptual analysis, the study will establish the Kenyan education system’s weaknesses. The study will critically illustrate, on the one hand, the need of train our learners on critical thinking skills at a young age, while on the other hand, calling for critical judgment in teaching and learning to bring about enlightened thought in learners. I used conceptual analysis to examine the role of critical thinking in our curriculum for school learners. In all, critical reflection shall inform the development of concepts in my paper to establish the goal of critical thinking in fostering open-minded and reflective thoughts in learners.

¹ A class of persons who together reflect and engage themselves in critically purposeful discourse to construct individual meaning and confirm mutual understanding in what is generally referred as the principles of philosophizing.
CRITICAL THINKING SKILLS: ANALYSIS OF THE KENYAN SCHOOL CURRICULUM

Critical thinking is among the seven core competencies in Kenya’s new competency-based curriculum (CBC). KICD (2017) argue that critical thinking will assist learners to open their mind, be in a position to accept and listen to new information and points of view that may sometimes be different from their earlier held opinions and beliefs. Critical thinking skill is essential for all learners, in all disciplines and all subjects offered in the education curriculum. In science subjects, for example, the curriculum suggests that children should think critically about change in observable patterns to form ideas on how to deal with problems. Training learners to think critically, whether in science or arts without philosophizing, happens to be the main challenge of the CBC. The curriculum does not spell out clearly how learners can acquire these skills, given that in the Kenyan schools philosophizing with children is not in the syllabus. KICD (2017) recommends teaching learners at secondary school resourcefulness, resolving problems with limited resources such as water in the community and schools. But resourcefulness has to be grounded in some kind of philosophy and way of being.

Across the globe, the goals of learning in higher education, secondary and elementary curricula emphasize critical pedagogy; however, it is often unclear how educators will measure these learning outcomes. In Kenya's case, teaching critical thinking is challenging because there is no shared understanding of critical pedagogy and critical thinking skills to inform the development of metrics for measuring the learning outcomes (Kennedy, 1991). Thinking is a communal activity that helps learners recognize that they are in a community that shares common questions and concerns. Thus, the curriculum and assessment should emphasize the need to work together instead of competing, as witnessed in Kenya’s pre-CBC curricula (Cam, 2014).

ASSESSMENT OF CRITICAL THINKING SKILLS IN TEACHING AND LEARNING

Researchers from Durban University studied whether teaching children philosophy in primary school would enhance their ability to mathematics, writing, and reading (Nuffield Foundation, 2015). The study also examined the effect of philosophy on children's cognitive skills (Nuffield Foundation, 2015). The research focused on 50 schools, mainly at the primary level, across England with varied challenges and with the representation of students coming from disadvantaged environments. The assessment found
that philosophizing with children had a positive effect on learners at stages 1 and 2; Learners introduced to P4C made two months of improvement in mathematics, writing, and reading compared with learners not introduced to the principles of philosophizing. Teachers argued that critical thinking skills (or philosophizing) made learners confident, patient when listening to others, self-motivated, better, happy, and enlightened. Critical thinking skills enabled children to participate in class discussions and contribute to the construction of new knowledge confidently. P4C classes had high levels of student engagement, with many asking thoughtful questions. The evaluation also noted improved communication and peer relationships.

These findings resonate with the arguments of scholars such as Hamm (1989), (Vansiegleghem, 2006), and Robert (2008), who emphasize that principles of philosophizing strengthened learners’ reasoning (critical thinking) ability and allow them to fit in the global society as autonomous members. When moral principles, for instance, are fostered in children at a young age by a community of inquirers through interactivity and play that encourages autonomy, it helps children commit to a life dedicated to philosophical inquiry. Philosophizing, therefore, would become their way of life at later stages of life (Sharp, 1994). Enlargement of the mind in learners, according to Kant, plays a vital role in critical judgment. Critical thinking, whose criterion is judgment, is only possible when everyone’s standpoint is open to examination. Through imagination, critical reasoning makes those in the community of inquiry embrace diverse opinion and the inquiry of others; this attitude towards life and others is what many describe as global citizenship (Arendt, 1992).

Our schools ought to dedicate themselves to enlarging the minds of all learners (Arendt, 1992; Robert, 2008; Burch, 2001), which would expand the community of inquiry in Kenya (Dewey, 1966). Enlargement of mind means the capacity to think representatively from the standpoint of everyone else. Enlargement of mind through a community of inquirers requires individuals with similar mindsets but diverse opinions and common concern to figure out challenges and resolve issues that emanate from within their persons and society. A community of inquiry can be organized in the Kenyan school classrooms with specific philosophical and epistemological instructions and theories to create a meaningful learning experience and achieve higher-order learning (Akyol & Garrison, 2008). Vansiegleghem (2006) argued that philosophizing offers the possibility to think as individuals while in a group by employing tools of thought which enable individuals to assess the reasoning of others and the self.
Kenyan classrooms bring various learners with different thoughts into contact, which can create a community of inquiry, leading to the enlargement of the mind. To show how it works, Kant said that the human mind needs a reasonable amount of relaxation to examine an issue from all perspectives (Arendt, 1992). It is through imagination that critical judgment is possible. However, solitary, critical thinking does not mean cutting oneself from all others. This thinking, as Arendt (1992) observed, does not depend on age. For our children in Kenya to think with an enlarged mentality, we ought to train them on how they can harness the power of their imagination to transform their lived experiences. “Enlarged thought” disregards self-thought or self-interest, which Kant explains is limited and unenlightened thought. It should be noted that Kant does not tell us how to combine our thoughts with others; he tells us how to take others into account to make a reasoned judgment (Arendt, 1992: 38-45).

The introduction and integration of critical thinking for children in Kenyan secondary schools to create a community of inquiry can develop in young citizens the disposition that will make them enlightened and independent as they proceed to higher learning and community responsibilities. Lipman (2003) argued that critical thinking involves mutual criticism, careful voicing of opinions, and judgment, which makes children enlightened and self-reliant (Lipman & Naji, 2003). The introduction of the principles of philosophizing, according to Lipman (2003), is the best way of making education relevant. Philosophizing would occur in schools when classrooms become communities of inquiry.

Schools in Kenya can teach critical thinking because learners are already stimulated and curious. However, the outcome of the process would be good if it is assessed well (Watson-Glaser, 2010). Valid critical thinking assessments should allow for the visibility of learner’s reasoning. Hence, Socratic questioning would be the most appropriate means for assessing critical thinking compared to objective questions (Norris & Ennis, 1989). Socratic questioning is more sensitive to critical thinking dispositional factors (Ku, 2009). Koziol and Moss (2005) added that learners should be assessed based on their positionality and the nature of their arguments. For learners to assess con and pro arguments, they need to know the standards to use in critiquing an opposing piece of evidence so that they can avoid bias, closed-mindedness, thoughtless generalizations, and ethnocentrism (Case and Wright, 1997); Socratic questioning can help educators verify student understanding on this issue as well Schools can also use the Paul and Elder (2008) assessment tool of Critical Thinking to assess learners’ critical
reasoning skills. The tool comprises of the elements of thoughts assessed using the intellectual standards with goals of developing the intellectual traits.

**CHALLENGES OF IMPLEMENTING CRITICAL THINKING PEDAGOGY IN KENYAN EDUCATION**

Although contemporary and traditional theories provide a base for learning and teaching critical thinking skills in universities and colleges, many graduates from institutions of higher education in Kenya find it challenging to perform tasks that require critical thinking skills. A plausible explanation for this situation is that many learners in Kenya ask lower-order questions since teachers, who also did not learn how to think critically due to the same systemic challenges, failed to train them to ask higher-order questions (KICD, 2017). Teachers’ interpretation of critical thinking and critical thinking pedagogy may be among the factors causing this problem (Kennedy, 1991; Jones, 2004). Another factor is how teachers support learners in developing problem-solving skills (Goddard & Goddard, 2001; Wheatley, 2002). The learners’ own motivation regarding critical thinking abilities can also contribute to the problem (Bandura, 1993; Zimmerman, 2000; Caliskan 2010). Some learners also find it challenging to search for information (Laxman, 2010). Finally, teachers’ preference and lack of training in constructivist teaching approaches could also explain this problem.

Education reforms in Kenya fail to address the critical thinking gap in the education systems adequately. The report of multiple education reform committees in the history of starting from the 1960s deemed education as the great equalizer that would reduce inequality and create the condition for Kenyans to solve the country’s problems. The committees, including Ominde in 1964 and Koech in 1999, consider critical thinking skills as an essential skill. However, the Kenyan government has failed to implement the critical thinking provisions in the various reports fully. In other words, the education establishment has consistently failed to make critical thinking an essential component of education reforms since independence (Amutabi, 2003; Kivuva, 2005).
DISCUSSION AND CONCLUSION

To have a shared vision for developing critical thinking culture for the 21st century global citizens in our schools, teachers should be competent and committed to teaching and integrating critical thinking into all school programs. Secondary school learners, on the other hand, should be willing to participate in the community of inquiry to cultivate critical thinking culture in their classrooms. The schools should encourage the development of a community of inquiry and school-wide practice of critical thinking skills through collaboration in both teaching and learning. In summary, critical thinking pedagogy should be infused holistically in all programs through the community of inquiry, as shown in Figure 1 below.

**Figure 1**
*Critical thinking approach in the Kenyan schools*

As teachers shift the pendulum from learning to thinking, they should select both formal and informal assessment tasks that enable students to apply critical thinking processes. The assignments should incorporate real-world scenarios, such as devising a local way of treating water using available
materials like gravel, explore the feasibility of assisting parents in farming using new acquired agricultural skills, create artistic works for auction to support a local charity, manufacture an organic household product, write and perform a play based on a novel that was studied in class, devise ways to recycle plastics and wastewater, and take a virtual field trip to a region that is studied in geography or social studies. Undoubtedly, by completing these projects, students would learn how to plan around a time frame, gather information, collaborate, consider feasible alternatives or troubleshoot problems. In addition to projects and written papers, verbal techniques, such as argumentation, provides an excellent way for students to demonstrate their ability to think critically. According to Watson-Glaser (2010), argumentation is valued for facilitating conceptual change, particularly for less structured problems. That is, learners, alter their comprehension or “adjust their frames of reference to accommodate new perspectives” (Watson-Glaser, 2010: 42). Above all, a holistic approach to teaching for critical thinking should involve a set of appropriate goal-oriented assessment tasks that enable students to manipulate cognitive skills.

While not many Kenyan schools have adopted the practice of philosophizing with children on a broad scale, it is essential to assess the existing school curricula to determine where they are lacking; in this paper, I pursue this project. Future research could systematically investigate how critical thinking training within one domain could transfer to other areas. In addition, it would be useful to determine if there are approaches to critical thinking training that promotes high performance on standardized tests given teachers’ concerns that focusing on critical thinking would take away time from standardized test preparation. Examining students’ disposition and exposure to traditional knowledge and customs on their ability to think critically could advance our understanding of the role of African traditional education in schooling. The rationale for this is that children’s prior educational experiences and their family beliefs about the value of critical thinking could play a role in the effectiveness of critical thinking education. Other studies could examine teachers’ attitudes towards teaching critical thinking through focus group discussions. Such a study can investigate the impact of peer review mechanisms and peer-to-peer teaching on teachers' ability to mainstream critical thinking into their teaching. This could result in teachers building on one another’s ideas in interesting ways.

In the long-term, Kenya would need to move away from teaching critical thinking as a stand-alone topic to the infusion of critical thinking across curricular domains. Integrating thinking and disciplinary content to
develop disciplinary understanding is educationally sound and a step in the right direction. This research has indicated that even when some teachers are committed to infusing critical thinking across the curriculum, they may lack some necessary substantive background knowledge and the pedagogical skills to assess how well their students think critically. This research has proposed ways in which Kenya can harness educators’ and students’ energy to drive the change in policy. This energy arises from “doing something well that is important to you”, which contributes to others as well as society as a whole. Critical thinking is something teachers must be passionate about and, it should be infused purposefully across the entire curriculum. The key to making critical thinking more pervasive in primary and secondary schools is to tap into the energy of teachers, who are passionate about nurturing students’ critical thinking abilities and supporting them to influence other teachers through capacity building and collaborative group work (Paul & Elder, 2010). Only by equipping all teachers to mainstream critical thinking across the curriculum through systematic, ongoing professional development can all learners develop the required critical thinking skills. Restructuring the Kenyan curriculum in primary and secondary schools to focus on critical thinking will facilitate teaching that is geared towards fostering free and reflective minds capable of resisting various forms of propaganda, fanaticism, exclusion, and intolerance.

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