

Meeting Demands of Vision 2030 and Globalisation: Some Reforms and Innovations Necessary in Curriculum under Kenyan Sky

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If all our teachers knew about interesting and effective ways of teaching, assessment and evaluation, we wouldn't be in the economic and technological mess that we are in today.

Abstract

The current world is operating in an economy that values creativity and innovation for scientific and technological development. The future seems to be destined for cutting edge research, technology and global competitiveness for the scarce resources. Achieving and sustaining such growth is dependent on robust education and skills development systems that upgrade creativity, innovations and problem solving skills in our youth. In this endeavour, transforming the curriculum to meet the demands of vision 2030 and millennium development goals (MDG's) become critical under the Kenyan sky. This paper presents and discusses some of the reforms necessary in the Kenyan curriculum that could enable the country transform herself to an economy that is capable of competing at the global level.

Keywords: Teacher education, curriculum, creativity, innovativeness, technological development

1. Introduction

Just like we are what we eat, we are what we go through in terms of education (curriculum). Education is what remains in us after we have forgotten all that the teacher made us cram while in school. Curriculum as used in this paper means teaching and learning practices, research, assessment and evaluation procedures, teaching/learning aids, teacher education programs as well as all the experiences pupils go through in and out of school. Kenyan economic growth rate stands at 4.3% currently compared to the projected 10% in the vision 2030. Of the 41 million Kenyans, 40% are unemployed of which 70% are young people from school and colleges (Kenneth, citizen TV 2012). Learning assessment by UWEZO (2010, 2011) revealed that children in Kenya are not acquiring basic reading and numeracy skills during early years of primary education. About 70% of Standard three pupils cannot read, write or count. About 10% of Standard Eight are unable to perform standard two level assignments (UWEZO, 2010; 2011). Kenyan standard eight pupils perform better in languages than in mathematics and sciences (Muindi, 2010). The situation is worse among the poor, where children from socio-economically disadvantaged households perform poorly in all areas in comparison to their counterparts from affluent backgrounds (UWEZO, 2010; 2011). Though more than 90 per cent of school-age children are schooling, they are not learning core skills expected at their age and grade level. Thus literacy and numeracy skills of most pupils remain low through primary school, secondary and even universities. One realises that a lot of college and university graduates in Kenya as well as the general public have common problems such as inability to solve simple real life problems, lack of logical thinking (essential for writing computer programmes), and lack of mastery and confidence with basic math skills. The problems of health, poverty, tribal clashes, drought and other environmental disasters in Kenya could largely be attributed to the education system, curriculum in place and nature of classroom instructions in Kenyan classrooms.

2. The problem

The Education sector in Kenya is at crossroads if recent reports of teachers being roughed up by parents over poor examination results, pupils committing suicide for failing to score good grades in national examinations and candidates/teachers being caught with exam materials in the exams are anything to go by. Kenya's poor quality of education and high wastage is worse or is comparable with less endowed countries in the region like Cape Verde, Rwanda, Mali, Senegal, and Malawi (Abagi, 2012). Education has ceased to be utilitarian and instead it has become a fierce rat race to accumulate impressive grades and papers at the expense of quality (Mugo, 2012). Classroom instructions are full of memorization and ritualistic repetitions that do not lead to meaningful learning and creativity (Ngaywa, 1980; The Standard, 2011; Abagi, 2012 & Ayiro, 2012). Teachers are less innovative in their teaching practices and are driven by good grades in examinations often resulting into exam cheatings and students with certificates but without ability to engage in problem solving (Mugo, 2012). Classrooms are over crowded with high pupil-teacher ratio. Buildings lack windows, ventilations, doors and children write on laps

while seated on stones/blocks. Lack of latrines, power, clean water as well as sanitary towels for girl child is a problem that affects learning in schools.

At the universities, real issues facing the society are rarely addressed. Research is dead and Professors have resorted to teaching for money (Wachira, 2012). After forty-one years of independence, schools and faculties are yet to come up with meaningful innovations that could address some of the problems facing the country. Kenya ranked 83 out of 132 countries in innovative index. Scholars work from eight to five and spend the rest of the evening drinking instead of brainstorming. Universities have gone commercial mounting un-accredited courses with unqualified staff. Teacher education programmes have remained theoretical, traditional, conservative and outdated (SMASE, 1998). Teachers do not embrace technology, are lazy and uncommitted to the profession (Aluanga, 2012; Ayiro, 2012). They are unable to work with students to produce results (Ayiro, 2012). Fingers point at the School-based programs at the universities for producing incompetent teachers. Recent findings of Prof. Odhiambo's Taskforce on realigning the Education Sector to the Constitution and Vision 2030 confirms that indeed there are problems and various challenges of the current system which include access, quality, equity, relevance, institutional management, monitoring and evaluation as well as financing. So, with the foregoing can we as a nation compete favourably in the knowledge based technological economy?. The answer is NO. This paper presents and discusses certain reforms in the curriculum necessary under Kenyan sky.

3. High Achieving countries (OECD, TIMSS & PISA)

In high achieving countries like Finland, Singapore, China, Japan and Hong kong, curriculum is reviewed regularly and the entire teaching and learning system is action research based and involves assessments and evaluation procedures that incorporates investigations, projects, evaluations, essay /oral exams, observation, analysis, criticism, problem solving and reflection. Teachers are thus prepared to learn from their students and their teachings (lesson study), they are supported, fairly well paid above our teachers and undergo regular professional programmes.

4. Methodology

This study adopted a meta analysis approach in which various researches were scrutinised, analysed and comparison made between the expected and current practice as well as performance in order to identify the gap. Best practices in successful cases were also looked at and reported.

5. My idea

There is need to reposition teaching and learning in Kenyan classrooms for global competitiveness in the knowledge based economy of the 21st century. To achieve this, Kenya must focus on her curricula, teacher education programme and the school in general. Teachers should embrace humor, ICT, better classroom management skills, reflective teaching and classroom research to help address problems that may arise during teaching and learning. Assessment and evaluation procedures that can inform teaching and learning such as enquiry, observation, analysis and project work should be embraced.

Accreditation of teacher education programmes and indeed others should be undertaken on regular basis to ensure relevance. Education programs need to shift from the current norm in which emphasis is on academic preparation and course work loosely linked to school-based experience to programs that are fully grounded in teaching practice (TP) under the expert tutelage of skilled committed advisors and interwoven with academic content and professional courses (NCATE, 2010). Teacher educators need also to go on attachment to new learn new ideas and methods of delivery for their various disciplines. To achieve this, teacher education faculties need to work in close partnership with model schools to better serve prospective teachers and the students they teach (Maynard and Furlong, 1993; Quick and Rob, 2005). Teachers should use oral questions skillfully in class to encourage participation and help children develop their thinking skills. Classrooms organization should take into consideration individual differences (Suffolk, 2004). The concept of mobile schools and school in a box to capture nomadic communities needs to be embraced and practiced. The culture of hard work and commitment should be instilled in learners, teachers and all the stake holders. Authorities need to provide power, clean water, sanitation, classrooms and desks to enable learners settle psychologically so that teaching/ learning can take place.

Universities should be evaluated not only on the basis of ICT but also on the basis of how their graduates are employed or are able to create employment opportunities. Teaching an aspect of ICT from ECDE (disguised as game design) is not only possible but is already happening in progressive curricular for countries such as South Korea, Malaysia and Norway. Given how important and powerful technology will be in their lifetimes, our children need to learn early on that so that they can make it do what they want, rather than become, as many of us are today, digital immigrants or slaves. We need to delete the huge amount of the overloaded curriculum that is no longer needed and replacing it with useful items such as programming, systemic problem-solving,

understanding and correctly using statistics, literacy in non-textual and mixed media, using technology to effect change, and the basics of communication- all starting in the earliest grades. We should thrive for learning that encompasses inquiry-based, problem-based, case-based, student-centered, and other up-to-date types of teaching and learning. Our teachers therefore need to focus their thinking on learning to teach with pedagogy and curriculum that prepare our youth for their future in the 21st century.

In Japan, the teacher is greatly respected, honoured and admired (Hawley & Hawley, 1997). Only the best of the best get admitted to the University of Education. We need to admit only the best in our schools of education and invest smartly in our teacher education programs in order to produce more innovative members of the society so as to attain the desired vision 2030 and MDG's. To this end, we need to specifically alter the organisation and duration of TP to provide more practice-based experience for teacher trainees. In this respect, the practice by Masinde Muliro university needs to be emulated and improved on for the desired changes in preparing effective teachers for today's school. Signature pedagogies must prevail in the teacher preparation programmes if teaching is to be considered a profession.

As we grapple with what will constitute the appropriate education for our country, the temptation of embracing technology comes to the fore. Neither will the attempt to embrace technology per se, or rearrange the 8-4-4 system nor introduction of ECDE curriculum as suggested by the Taskforce help much unless we change our teaching methods and what we teach (Ayiro, 2012). or the, primary, secondary and tertiary levels, as developed by the Kenya Institute of Education. If we want to see a positive, constructive and productive education system that will give birth to functional citizens for our country, we need 21st Century pedagogy along with 21st Century curriculum. The reform to our curriculum, therefore, should put its thrust on what goes on in the classroom. We should thrive for learning that encompasses inquiry-based, problem-based, case-based, student-centered, and other up-to-date types of teaching and learning.

6. Conclusion

The current shortage of skilful, creative and resourceful academicians, researchers and politicians to address problems of hunger, poverty, health, and environment among other things in Kenya is a matter of international concern. Kenya was at par with the tiger economies in the early 60's. A comparison of the economies today however reveals a lot of disparities. Whereas the tigers have invested in research, curriculum and their education system, curriculum and education in Kenya have remained conservative and of poor quality. Emphasis on examination, grades and certificates other than learning is a phenomenon widely practiced in schools (Oduor, 2011). The education system produces robots that possess an amazing capacity for storing facts and churning them out at the press of the right button instead of creative and intelligent youth who can take Kenya forward into the golden age. Qualities like independent thinking, problem-solving ability, initiative, leadership skills and social competence fall by the wayside as getting high grades and certificates becomes their only goal. The result is that Kenyan children are less innovative, less able to obtain jobs, make less money, contribute less to their community and country, and have less knowledge to pass to their children.

We should be busy lifting ideas, formulae, recipes, and diagrams from developed economies and aligning them to our situation. All the research findings and dissertation papers we compile and present in conferences such as this one should be our country's treasure. That is why Asians (Japan, China, India) are a force to reckon with. Become innovative and make your own stuff for god's sake. Some of our have got the highest grades in mathematics and the sciences and attained the highest education on the planet from Harvard, Oxford, Yale, Massachusetts Institute of Technology (MIT), only to seat there drinking in the evenings with not a single invention or discovery.

7. Recommendations

Despite the fact that Kenyan government have progressed towards EFA, access, and equity, there is need still to improve on what goes on in the schools and teacher education programmes. Relevance of the curriculum is still critical and needs to be focused on to attain success. If we want to see a positive, constructive and productive education system that will give birth to functional citizens for kenya, we need to focus on teaching methods, and what we teach in schools.

Teachers should adopt modern methods, techniques and strategies of teaching that take cognizance of individual differences and culture. Lessons, assignments and tests needs to be planned for with clearly stated objectives. Use of humor in teaching, reflection, culture of hard work, commitment clear communication and skilful use of oral questions in class should be practiced by teachers.

Regular professional development programmes should be rolled out and made mandatory for practicing teachers. Use of technology in teaching and learning should be part of teachers culture (Ayiro, 2012). We should thrive for learning that encompasses inquiry-based, problem-based, case-based, student-centered, and other up-to-date types of teaching and learning.

Critical is reform on school curriculum and teacher education curriculum to include working in groups, analysing and solving problems, being able to create, innovate, observe, criticize and evaluate scientific investigations. Teacher education programmes should prepare teachers to reflect and learn from their students and own teaching. It should be practical, enquiry based and collaborative in nature. Above all, teaching should actively engage learners, promote innovation and creativity. Assessment and evaluation procedures should include all taxonomies of knowledge i.e oral, essay and performance tests as well as enable students to criticize, analyse, observe and reflect.

Education curriculum should be decentralised to allow different communities and individuals to be innovative and creative based on their culture and needs. It should not be based on standardised scores, exam, grades and certificates as it is now. For instance confining students from nomadic communities to schools and classrooms make them bored and disinterested in learning hence the concept of school in a box and mobile schools. This kind of innovation may lead to a diversity of talents that can propel creativity (Mutua, 2012).

In addition, we need to create moral and ethical core values for our people. In the words of Martin Luther: *the hope of a secure and liveable world lies with disciplined non conformist who are dedicated to justice, peace and brotherhood*. I believe there are a number of such disciplined non conformist in this room who are committed to piece, justice and brotherhood. Part of our work is how we can produce a generation of learners who have the commitment and skills that will allow them to survive in the world of tomorrow. This gonna require that we reform our curriculum and change our teaching. We need to move from conceptual teaching to active engagement of learners that promotes innovativeness.

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