

## **Assessment in higher education: learning support or measure of achievement?**

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### **Abstract**

*Curriculum change is happening at a national level in Kenya; the 8-4-4 system is being phased out and replaced with the competency-based curriculum, CBC. This change is confined to basic education i.e. from pre-primary level to tertiary education, offered in different colleges throughout the country. University education does not form part of basic education. It is seemingly untouched by change in the national curriculum. However, university undergraduates are intellectually formed and otherwise prepared through the basic education system. Any change, therefore, in basic education will necessarily affect the content and style of learning programmes in universities. Without going into a plethora of these changes, the paper considers a salient factor: assessment. The suggested change in, and rationale behind, assessment in the CBC may signal an equivalent shift in higher education. Undergraduates joining universities, from the CBC system, will have been habituated to formative assessment. Will the traditional approach of sole summative assessment, in higher education, still be fit for purpose? And what purpose? No hard and fast rules or fixed solutions, to this situation, are offered. This is not a setting out of policy; it is rather an elucidation of the rationale and intended purpose of formative assessment –the significant change in Kenya's curriculum. It is compared and contrasted to summative assessment; nuances in both assessment methods and their intended effect on the learner are highlighted. The aim is to signal, to universities, the expected attitude of mind that future undergraduates may bring to their institutions.*

### **Assessment in education**

In January 2018, a new curriculum for Kenya was rolled out, beginning with early years education – pre-primary and grades 1, 2, 3. The system is designed to unfold incrementally. These learners are aged four (4) to eight (8) years and once started they are not going to change, midstream, back to 8-4-4 (this latter refers to 8 years of primary schooling, 4 years of secondary education, followed by 4 years of university education hence 8-4-4) That the 8-4-4 is being phased out and replaced with the Competency Based Curriculum (CBC) is an accomplished fact.

Putting aside the clustering of learning years, 8-4-4 versus the CBC's 2-6-6-3, the salient change is assessment. In the 8-4-4 system only one type of assessment was used –periodic summative assessment in KCPE (Kenya Certificate of Primary Education) and KCSE (Kenya

Certificate of Secondary Education). The third summative assessment is offered outside the scope of basic education; it is the prerogative of higher education. To these summative assessments (or examinations) CBC is introducing formative assessment albeit with a different rationale and expanded mandate.

Formative assessment does not replicate the measuring of a learner's knowledge; it focuses on other areas and from other perspectives. The primary aim, of formative assessment, is to hone the learner's skills, values and attitude. Its purpose is to show up gaps that are to be addressed in the continued learning process.

Formative assessment is not a tool for measuring what the learner has already achieved. It is not a tool that is applied sequentially after learning has occurred. It is, rather, a tool for teaching and learning. In contrast, summative assessment measures the learner's achievement. And, it has been restricted to measuring acquisition of theoretical knowledge.

Apart from introducing formative assessment, the CBC widens the scope of what is to be assessed. Skills, attitude and values will now be material for assessment. These last are difficult to measure through summative assessment. Besides, values and skills are to be continuously instilled rather than periodically measured. Formative assessment is the suggested tool for *forming* skills, values and attitude.

In the 8-4-4 system, teachers in basic education together with lecturers in higher education, approached assessment, solely, as a tool for measuring how much knowledge a learner had acquired. Corresponding alphanumeric grades were assigned to reflect the learner's level of knowledge –and only knowledge.

The aim of the periodic summative assessment (or examinations) was restricted to acquisition of theoretical knowledge, after which a learner proceeded to the next level. If the level of knowledge was wanting, the learner stayed in the same level (repeated) or dropped out of the education system. For instance, after the KCPE learners who attained high scores could proceed to the next level of schooling –secondary education.

At the end of secondary schooling, another national summative assessment was administered. Once again, the sifting process was repeated; those who scored highly were offered a place in higher education. Summative assessments –standardized nationwide examinations– have been used to separate learners according to their cognitive ability.

What happened to those who scored low grades? They joined diploma and certificate colleges. But those whose grades were too low for college, either retook the examination or dropped out of formal schooling.

Perhaps without an overt intention, the 8-4-4 system catered only for learners who achieved high grades. The system appears not to have given serious thought to those who score low grades in the cognitive domain. Put in another way, learners who scored a D or an E grade had the sole of option of dropping out of national education. 8-4-4 had nothing else to offer them.

And, the grades it awarded reflected the learners' level of knowledge while remaining silent about his skill, values and attitude. The system was designed to filter high achievers, in the

cognitive domain, and channel them into higher education. And, this would be about 30 per cent of the total number that enrolled in standard 1.

At the end of higher education, again a summative assessment selects these high achievers for the competitive formal job market. From the number of learners who enroll in standard 1, 30 percent end up in higher education. Is it satisfactory for a national educational system to cater for only 30 percent of the entire learning population? What good reason can Kenya offer for not planning educational progression for all its citizens?

Again, graduates from higher education have to compete for slots in the formal job market. And here more than good 8-4-4 grades are required; the job market utilizes more than cognitive ability. In interviews, recruiters for formal employment, ask for more than the applicant’s high level of knowledge.

And this ‘more’ or other interests include values, skill and attitude; they form an integral part of the person joining the job market or taking any place in human society. This is precisely what formative assessment is designed to address.

Figure 1: Structure of the 8-4-4 Curriculum

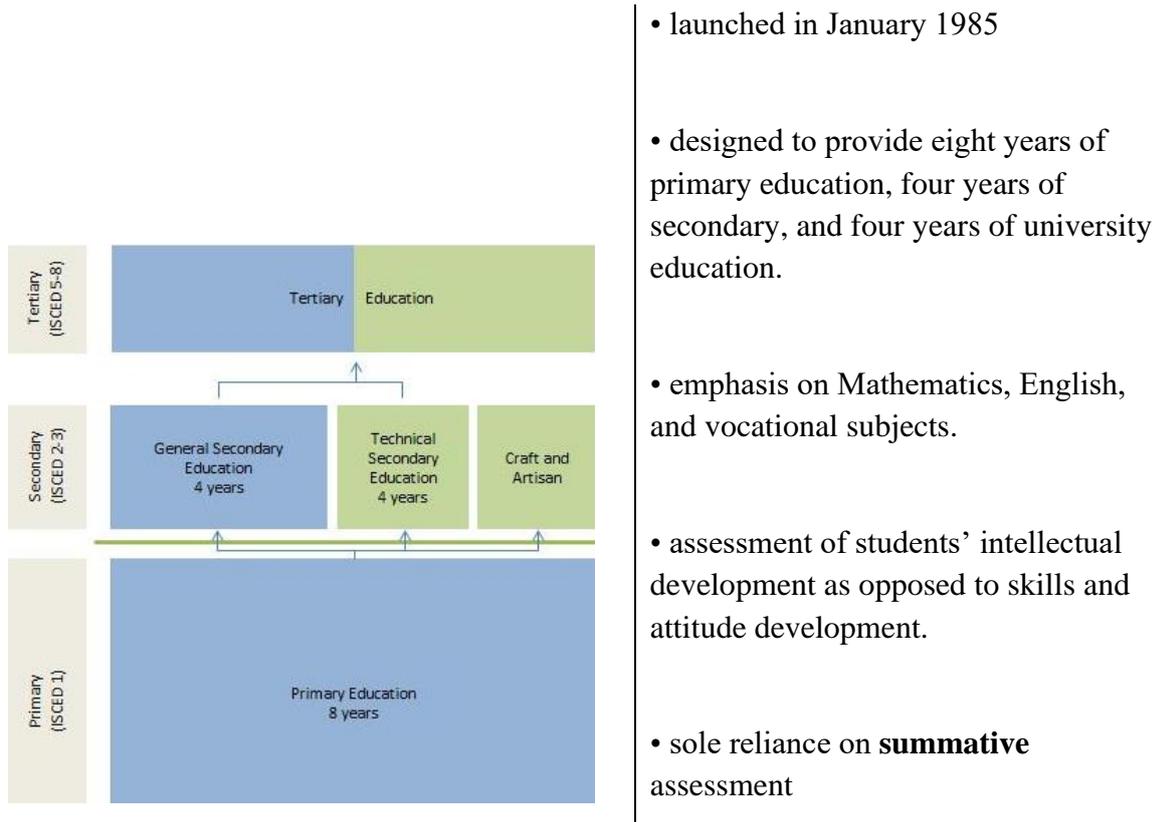
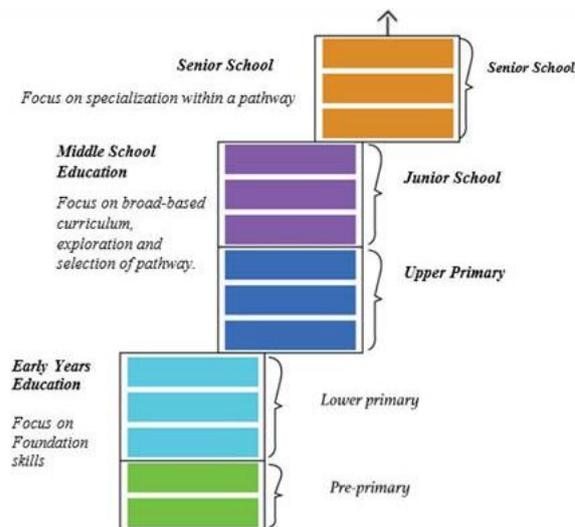


diagram source: Project iMlango Endline Evaluation Report, 2017  
<https://assets.publishing.service.gov.uk/>

Figure 2: Structure of the Competency Based Curriculum



- early years education rolled out in January 2018
- designed to provide five years of early education, six years middle school, and three years preparation for tertiary education or exit to world of work.
- emphasis on acquisition of competencies. what the learner can **do** as opposed to what he knows
- assessment of students' knowledge, skills and attitude development.
- heavy reliance on **formative** assessment

diagram source: <https://unesco.go.ke/>

## Reasons for the Education Reform

The move from 8-4-4 to CBC has been praised and condemned in equal measure. Some of the demerits that caused much comment are here outline. Kabita, D.N. and Ji, L., (2017, p 6) addressing the 'many cynics and skeptics' that challenge curriculum change, say:

*...the majority of citizens [Kenyans] feel strongly that the current system of education (including both structure and curriculum) are not fit for purpose. This was confirmed by findings of a summative evaluation ... conducted by the Kenya Institute of Curriculum Development in 2009; and a national needs assessment study... in 2016. Vision 2030... also points towards the need to reform the country's education.*

And Ogutu, D. M. (2017) is of the same mind. Kabita *et. al.* are thorough in laying out the ground covered before arriving at the decision to reform Kenya's education system. The five countries, Kenya, Uganda, Tanzania, Rwanda and Burundi resolved to form [once again] an integrated East Africa Community (EAC) One of the objectives, in the creation of this community, is to foster cooperation and integration.

And one way of doing this, is to facilitate the movement of goods and services across the region, which in itself, requires the movement of labour. This in turn, requires that curriculum for partner states of EAC be harmonized to enhance mutual recognition of certificates... (EAC 2007, p 76).

The resulting resolution culminated in the development of 'A Framework on Harmonization of Curricula, Structure and Examinations in EAC' (EAC 2012) All partner states, according to this resolution, are required to reform their curricula ... to align them to this framework. Tanzania, Rwanda and Kenya have started these reforms.

It is also pointed out, by the same authors, that Kenya is a signatory of the United Nations Sustainable Development Goals (SDGs) of the year 2016; another underpinning reason for curriculum reform in Kenya. KICD's Basic Education Curriculum Framework (2017, BECF) states the same.

### **Criticism of the Education Reform**

Popular media has been rife with criticism. I shall however restrict myself to scholarly criticism. Kaviti, L. (2018) has little praise for the CBC, especially coupled with the provision of free secondary education.

While she outlines several demerits, the main ones include, 'it is too futuristic and impractical to implement in Kenya by January 2018' and the supporting reasons run as follows: 'during the planning stage, key stakeholders were not brought on board.

It would be critical for a commission comprising of all [sic] stakeholders -including teachers representing all levels of education, parents/guardians, curriculum experts, the Ministry of Education as well as donor [sic] (who hopefully will fund this ambitious endeavour) be brought on board to thoroughly investigate the new curriculum.'

However, in implementing the CBC, the curriculum reformers appear to have taken this very route unbeknownst to the above researcher. It is with palpable caution that Kabita et al (2017 p 7.) and KICD (2017) state:

*Almost all citizens in a country are stakeholders in education by way of being parents, learners, employers, teachers and siblings or relatives of learners. Curriculum change is, therefore, a high-stakes, technical, political, and sensitive issue ... curriculum is influenced by both national needs and international trends. KICD undertook several international benchmarking visits ... collaborated with universities, Ministries of Education, the Teacher Service Commission, Teachers Unions, and employers, among other stakeholders...*

Secondly, the curriculum reforms were arrived at after a national needs assessment which revealed that majority of Kenyans perceived education as a powerful tool ... they have a general feeling that the [current 8-4-4] education system 'emphasised acquisition of knowledge ...' while its 'examinations tested memorisation' of that same knowledge, hence a move towards the CBC according to Kabita et al (2017 p 7.) and KICD (2017).

Kaviti continues (2018, p. 94) 'It would be advisable for the Government of Kenya- through its organs (the Education Ministry and constituent departments of Education and the Kenya Institute of Curriculum Development (KICD) not to repeat the mistakes previously made during the roll-out of the 8-4-4 system.'

And mistakes pointed out include: hurried and haphazard implementation, not ‘all teachers are adequately informed about the content of delivery, especially with regard to the shift from national examinations to individualized CATs. The shift in assessment style also needs to be carefully scrutinized...’

### The most misunderstood aspect of CBC: Formative Assessment

The issue of summative and formative assessment is one of the most misunderstood aspects of the CBC. Apart from researchers like Kaviti (2018) perhaps school teachers, the crucial implementers of CBC, also misunderstand formative assessment.

Figure 3: Comparison of assessment in 8-4-4 and the Competency Based Curriculum

8-4-4	Competency Based Curriculum
<p>Emphases</p> <ul style="list-style-type: none"> <li>1. knowledge 100%</li> <li>2. skills 0%</li> <li>3. attitude 0%</li> </ul> <p><b>Summative</b> assessment 100%</p> <p>at two levels</p> <p>after <b>8</b> years primary education <b>KCPE</b></p> <p>after <b>4</b> years secondary education <b>KCSE</b></p>	<p>Emphases</p> <ul style="list-style-type: none"> <li>1. knowledge 33%</li> <li>2. skills 33%</li> <li>3. attitude 33%</li> </ul> <p><b>formative</b> assessment (% yet to be decided) <b>summative</b> assessment (% yet to be decided)</p> <p>at three levels</p> <p>after <b>5</b> early years education (not yet decided)</p> <p>after <b>6</b> years middle school (not yet decided)</p> <p>after <b>3</b> years senior school (not yet decided)</p>

diagram source: author

The common misunderstanding is to equate summative assessment with national standardized testing e.g. KCSE while assuming that continuous assessment tests (CATs) are the formative assessment. This is a false position according to Yorke M. (2003).

Figure 4: Comparison of assessment in the Competency Based Curriculum and assessment in higher education

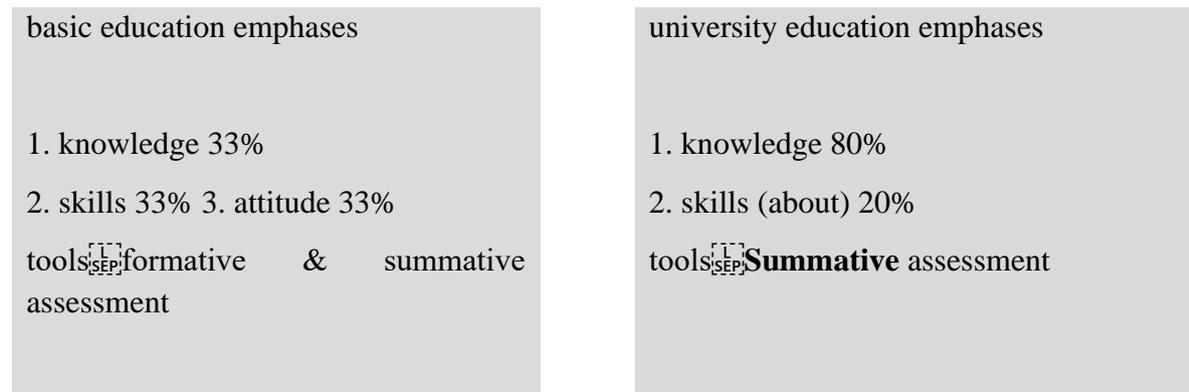


diagram source: author

What distinguishes the two assessments is their purpose: summative, measures achievement while formative, supports learning. Besides, the CBC has moved from the previous position of measuring learners' achievement in knowledge acquisition only. A grade A or B, in the 8-4-4 system, simply reflected the knowledge of mathematics, English or Science and was silent about what the learner could actually do with this knowledge.

Acquisition of theoretical knowledge is what was assessed in the 8-4-4 system. CBC, on the other hand, places stress in a different sphere: while acquisition of knowledge is still important, it must yield some ground to skills, attitude and values.

Where the focus used to be what the learner **knows**, CBC has shifted it, to also include what the learner can **do**. Skill, attitude and values are as important as knowledge acquisition. The question is how instill skills, attitude and values?

CATs as administered in the 8-4-4 system are more summative (measure of learner's achievement –how much knowledge has been transferred to the learner) than formative (a tool for teaching and a supporter of learning –what else does the learner need)

Therefore Kaviti's (2018) criticism that,

*The shift in assessment style also needs to be carefully scrutinized. CATs administered subjectively at a teacher's whim could end up disastrously, especially when administered by teachers who were used to preparing students for national exams after 8 years of Basic education and 4 years of Secondary school education.*

is difficult to respond to because it misunderstands the purpose and modus operandi of formative assessment i.e. identifying learner's gaps in knowledge, skill, attitude and values. And these gaps are identified so that they can be addressed in the next learning sessions.

Besides, how grade, in summative assessment, the attitude and values of the learner? These lend themselves naturally to formative assessment where the follow up lessons are designed to tackle them.

To accuse a teacher of being 'subjective and whimsical' in assessing cannot apply to formative assessment. The teacher uses formative evaluation as a core part of teaching and learning. And, he can only impart his attitude and his values. Formative assessment is the tool used by those engaged in parenting. CBC is actually asking the teacher to stand '*in loco parentis*'; to fuse the role of teacher with that of parent.

### **Formative assessment in higher education**

Higher education can opt to include formative assessment in delivering its programmes. In which case, the approach to undergraduates and the material to be covered require a radical re-design.

Higher education could also ignore curriculum change, with its formative assessment, and stick to the traditional summative assessment. In this case, the undergraduate, who has been schooled for 12 years using both formative and summative assessment, will have to alter his mentality once he gets to university.

He will have to un-learn reliance on formative assessment where diagnostic testing reveals what he does not yet know; he will have to un-learn the habit of paying attention to skill acquisition and value-cum-attitude cultivation. Once at the university, this learner will be obliged to concentrate solely on acquisition of knowledge while forgetting skill, attitude and values.

Whether a teenager (17 or 18 years old) is capable of such a drastic psychological and mental shift, is open to debate. It may be unrealistic to attempt changing ingrained habits of mind and spirit that have been cultivated for 14 years in the CBC system. And, after 3 years of higher education, the graduate will again be obliged to pick up skill, attitude and values for the world of work.

It appears more expedient for higher education to re-design its learning and teaching, incorporating formative assessment especially for skills, values and attitude than to require a young mind (undergraduate) to un-learn the pattern of assimilating knowledge; assimilating it as a composite of skill, value and attitude as opposed to solely developing the cognitive domain.

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