The Why, What and How of Competency-Based Curriculum Reforms: The Kenyan Experience
Open Note of the IBE

The IBE has launched the series In-Progress Reflections on *Current and Critical Issues in Curriculum, Learning and Assessment* to open a communal space for a global conversation, collective production and discussion on those issues of high concern for Member States. It intends to support country efforts in mainstreaming challenging issues within the processes of curriculum renewal and development across different levels, settings and provisions of the education system.

Initially, the focus areas of the In-Progress Reflections series encompass, among others: (i) Early Childhood Care and Education (ECCE) as a foundation of holistic child development and learning; (ii) Reading and writing in early grades to support the development of essential competencies; (iii) Youth Culture and competencies for Youth in the early 21st century (covering formal, non-formal and informal education); (iv) ICT curricula and inclusive pedagogy contributing to relevant and effective learning outcomes; (v) STEM (Science, Technology, Engineering and Mathematics) curricula to foster sustainable development; (vi) Curriculum for Global Citizenship Education (peace, human rights, sustainable development, values, ethics, multiculturalism, etc.); (vii) Assessment to enhance and support learning opportunities; and (viii) Inclusive education as an over guiding principle of education systems.

The series of reflections covers a wide array of knowledge products, among them: discussion papers, policy briefs, frameworks, guidelines, prototypes, resource packs, learning tools and multimedia resources. These materials are discussed, refined, used and disseminated engaging education and curriculum agencies / institutes, and in particular curriculum developers and specialists, development experts, policy makers, teacher trainers, supervisors, principals, teachers, researchers and other educational stakeholders. In addition, they serve as reference materials for the IBE menu of capacity-development training on curriculum, learning and quality education – namely masters, diplomas, certificates and workshops – to forge policy and technical dialogue involving a diversity of stakeholders and to support sustainable country fieldwork.

Through blogs and e-forums, we encourage the audience to actively interact and bring in diverse perspectives. Effectively, the online space for reflection allows us to stay connected, facilitates exchange between experts from different regions of the world, and truly fosters continuous reflection on the issues concerned. The blog is structured to gather diverse resources, which include tools and documents (as previously mentioned) under specific themes to provide a complex and rich set of materials targeted to the specific needs of Member States. The In-Progress Reflections will capture relevant visions, views and comments shared by the audience, and serve as a key resource to support Member States’ efforts in mainstreaming relevant findings and effective practices in national policies, curriculum frameworks and developments and in professional practices.

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Abstract: Curriculum is the vehicle through which a country empowers its citizens with the necessary knowledge, skills, attitudes and values that enable them to be empowered for personal and national development. Curriculum should, therefore, meet the needs of the individual citizens and the nation. With this principle in mind and in accordance with the Sustainable Development Goals (SDGs), curriculum change was thought to be necessary in the Kenyan education system. The Kenyan Institute of Curriculum Development (KICD) resolved to adopt a competency-based approach (CBA) in their curriculum reforms based on the findings of a needs assessment study carried out in 2016, international best practices in education systems and curriculum reforms, and a desire to make learning more meaningful. Educators in Kenya received a series of trainings on this approach from the UNESCO International Bureau of Education (IBE-UNESCO), among other experts. KICD conceptualized a competency as the ability to apply learning resources and outcomes (knowledge, skills, values, and attitudes) adequately in a defined context (education, work, personal, or professional development). A competency-based curriculum is a curriculum that emphasizes what learners are expected to do rather than mainly focusing on what they are expected to know. The process of curriculum reforms and of developing a competency-based curriculum are described in this report, as well as lessons learned and experiences that would be beneficial to others wishing to move toward curriculum reform and competency-based curriculum.

Keywords: Competency-based approach – curriculum – curriculum reform – Kenya – Sustainable Development Goals (SDGs)
Curriculum reforms

Curriculum is the vehicle through which a country empowers its citizens with the necessary knowledge, skills, attitudes, and values that enable them to be socially and economically engaged and empowered, for personal and national development. Curriculum should, therefore, meet the needs of the individual citizens and the nation. The need for curriculum change is prompted by many factors. Tyler (1949, p. 1) observes that educators need to reflect on the following four questions, when planning change in education, and especially the curriculum:

I. What educational purposes should the school seek to attain?
II. What educational experiences can be provided that are likely to attain these purposes?
III. How can these educational experiences be effectively organized?
IV. How can we determine whether these purposes are being attained?

According to UNESCO’s International Bureau of Education (IBE-UNESCO) (2015), which is a UNESCO institute that specializes in the policies and processes of curriculum development and implementation, and in learning content and methods, curriculum articulates educational domains (policy-making, educational planning, curriculum development, teacher education, student learning and assessment, etc.) to give effect to lifelong learning. Therefore, curriculum development and change should be guided by a holistic and systemic approach, which is critical to ensuring effectiveness and sustainability, instead of a piecemeal approach. Such change processes should be based on broad consultations, in order to ensure relevance, common understanding, ownership, commitment, and support.

Why curriculum change in Kenya?

The question ‘Why is curriculum change necessary?’ is one that every country and curriculum planner needs to think through very carefully. Asking this question ensures that change is well planned and not an ad hoc affair. It assists the curriculum planners to remain focused and even set and sell the agenda for change, while roping in the much-needed support from all stakeholders. 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. There are many cynics and sceptics who challenge initiatives to change, and therefore the rationale for curriculum change should be well thought and communicated efficiently and effectively.

Kenya has only experienced one major curriculum reform since its independence, in 1963. The reform was prompted by a change in the structure of the Kenyan education system in 1985. Ironically, the reform was incidental, and not initially anticipated. In 1981, the government set up an Education Commission, named ‘The Presidential Working Party on the Second University in Kenya’, with a singular mandate to advise on the establishment of the second university in Kenya. However, in the course of its deliberations, the Commission advised the government that it would be prudent to reform the country’s education structure and curriculum. This culminated in the change of structure of education from 7 years of primary education to 8; from 6 years of secondary education to 4; and from a minimum of 3 years of university education to 4, hence the 8-4-4 system.
Whereas the structure of education has remained intact since its implementation in 1985, the curriculum has undergone several reviews, in 1990, 1992, 1995, and 2003. Nevertheless, the majority of citizens 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, of primary and secondary education curricula, conducted by the Kenya Institute of Curriculum Development (KICD) in 2009; and a national needs assessment study, also conducted by KICD in 2016. The Kenya Vision 2030, which is the country’s blue print for national development, also points towards the need to reform the country’s education in order to equip citizens with the necessary knowledge, skills, attitudes, and values to achieve the nation’s social, economic, and political aspirations.

A major challenge of the current curriculum is that it is too rigid and has limited opportunities to align basic education with children’s career interests, aptitudes, and abilities. The system seems to serve best those who score high grades in the traditional subjects (English, Maths, Sciences, and Humanities) at the end of secondary education, and then proceed for higher education and take up white-collar jobs. This seems to be the predominant preoccupation of the Kenyan education. Whereas the country certainly requires learners who perform well in the traditional subjects and proceed to train for careers in medicine, engineering, law, and other traditional careers, the reality is that there is no country in the world that designs its education system with the aim of having all children join universities for the few traditional careers. There are many children whose aptitude, interests, and abilities lie in vocational education, arts, and sports. It is also worth noting that the Kenyan economy has many (self) employment opportunities in these fields. Furthermore, the job market in the 21st century is evolving to create more opportunities in small and micro enterprises rather than the traditional models of employment in careers like teaching, medicine, engineering, etc. Finally, the traditional knowledge-based curriculum suppresses the students’ interests in learning, and prevents them from developing talents and pursuing higher education.

The integration of Kenya in the East African Community (EAC) is another reason for the curriculum reforms. When the five East African countries (Kenya, Uganda, Tanzania, Rwanda, and Burundi) resolved to create the EAC, one of the objectives was to foster cooperation and integration. One way of achieving this was through promoting movement of goods and services across the five countries. Movement of labour required that the curriculum for the partner states was harmonized to enhance mutual recognition of certificates (EAC, 2007, p.76). This culminated in the development of ‘A Framework on Harmonization of Curricula, Structure and Examinations in the EAC’ (EAC, 2012). The standards and competencies require that all partner states reform their curricula, structure, and examination systems to align them to the EAC Framework (EAC, 2012).

Finally, Kenya is also a signatory to the United Nations’ Sustainable Development Goals (SDGs) that were unveiled in 2016. General education and specifically the curriculum that learners interact with will play a major role in helping Kenya achieve these goals by 2030. The curriculum reforms provide an excellent opportunity to align the education sector to the SDGs.

What curriculum changes?

Whenever the idea of curriculum reform is mentioned in any country, people are bound to ask ‘What will change?’. This is an important question because curriculum planners have to be quite clear and communicate not only what they plan to change, but also other unintended, and sometimes forgotten, areas that will change as a consequence of the planned curriculum changes. Many people are apprehensive about change, especially when they are not sure of what is changing and how this will affect them.
Curriculum is influenced by both national needs and international trends. KICD undertook several international benchmarking visits to South Korea, Canada, China, and the Netherlands, among other countries. The Institute also collaborated with universities, Ministries of Education, the Teacher Service Commission, Teacher Unions, and employers, among other stakeholders, to carry out a national needs assessment study in 2016. This helped to identify critical issues that needed to be addressed through the curriculum reforms, while it also enhanced stakeholder participation. There was also reassurance that the planned changes had been informed by both local needs and global trends.

The national needs assessment study revealed that the majority of Kenyans perceived education as a powerful tool to reverse the current dire social and economic challenges the country faces, like high rates of unemployment and underemployment. Most Kenyans felt that education could help to address this. There was also a general feeling that the education system emphasised acquisition of knowledge with no pedagogical emphasis on application. This also influenced the examinations, which mainly tested memorisation. Most Kenyans felt that there was a need to adopt a competency-based approach (CBA) that would promote application rather than mere acquisition of knowledge. Kenyans also expressed the desire to have a curriculum that empowers learners with 21st century skills to help them thrive rather than survive in this era. Based on this feedback, KICD proposed to adopt a competency-based curriculum approach in the reforms.

On the other hand, the country has experienced serious social challenges, including ethnic-related strife, like the 2008 post-election violence that resulted in the death of over 1000 Kenyans and destruction of property along with displacement of thousands of people from their homes. Furthermore, the country is struggling with social ills, especially among the youth, like drugs and substance abuse and rebellious behaviour. For the adult population, there are many challenges caused by corruption and negative ethnicity. Kenyans expressed the need for these, and many other issues, to be addressed through the curriculum. The needs assessment study findings were disseminated through a national stakeholders’ conference presided over by the Deputy President. Kenyans, overwhelmingly, endorsed the need to reform the curriculum.

### Basic Education Curriculum Framework

In line with international best practices and based on the need to anchor the curriculum reforms on a well-thought-out and comprehensive plan, KICD developed a Basic Education Curriculum Framework in 2016.

The following is a brief discussion of the components of the Framework:

**The vision**

The vision of the curriculum reform is ‘an engaged, empowered and ethical citizen’. The curriculum reform envisions to:

- Enable all young people to become productive and responsible citizens, who take their place in the world with confidence and pride.
- Develop independent, confident, co-operative and inspired learners, who love learning and are keen, focused and able to apply what they learn.
- Ensure that future generations of Kenyan citizens are committed to being good national and global citizens, equipped with the skills, knowledge, attitudes and values to thrive in the modern world, while being confident and proud of their rich cultural heritage.
- Enable young people to co-operate with their peers around the world through enhanced digital literacy and mastery.
The mission

The mission of the curriculum reform is to ‘nurture every learner’s potential’. In order to achieve this, the curriculum will provide opportunities to identify the potential that every learner brings to school and to nurture this potential through the learning pathways and tracks provided at senior secondary school. No child should be labelled a failure at the end of basic education. The maxim that KICD is persuading the country to adopt is that ‘learners do not fail; it is systems that fail’. This means that when learners avail themselves to come to school, it is the responsibility of the system to ensure that they learn the core curriculum and that their potential in terms of aptitudes and interests is used to guide them through the education offered, especially at senior secondary school. This will enable them, at the end of basic education, to have a clear view on the future careers and areas of further education that they will engage in.

Values

In a State of the Nation address, the Kenyan President directed that values should be taught at every level of the education system and that the work of mainstreaming ethics and integrity awareness in the public and private education curriculum should be expedited (Nation Reporter, 2015).

To address the challenge of teaching values, KICD has collaborated with stakeholders to design a pilot study on value-based education to facilitate development of a model on how to teach values effectively. The Institute is cognizant that although teaching values is critical in curriculum reforms, how to teach them may require a ‘whole-school approach’ that maximizes the available learning opportunities through formal, non-formal, and informal learning dimensions.

Based on extensive engagements with stakeholders and a study on value-based education (WERK, 2015) the values that will be taught in basic education are:

I. Love
II. Respect
III. Responsibility
IV. Unity
V. Peace
VI. Peace
VII. Patriotism
VIII. Social justice
IX. Integrity

Theoretical approaches

To ground the conceptualization and design of the curriculum on sound education and curriculum principles, the Framework is guided by several theories, including:

- Vygotsky’s social-cultural development theory, the primary focus of which is on supporting students through scaffolding the learning experiences.
- Piaget’s cognitive development theory, which will mainly provide the alignment between the maturational development of the child and how learning should be organized.
- Bruner’s cognitive development theory, which emphasizes the importance of organizing learning in a meaningful way to build from the known to the unknown.
- John Hattie’s Visible Learning that emphasizes the role of the teacher in terms of the impact the approaches adopted may have on students’ learning.
- Dewey’s social constructivism that focuses on the need to adopt learner-centred approaches in curriculum design and delivery.
Guiding principles
The Framework is based on the following principles:

**Opportunity**
Learners will be given a variety of opportunities to identify their needs, talents, and potential so that they can participate in the world of work and the development of the nation. The emphasis is on equal access to education for all, ensuring that learners enjoy learning and find it relevant.

**Excellence**
Learners will be nurtured to excel in their areas of greatest aptitude and ability. The Framework values excellence rather than competition for examination grades.

**Diversity and inclusion**
Learners will be guided to appreciate Kenya’s diversity in terms of race, ethnicity, gender, language, culture, and religion. It also respects learners’ different needs and abilities, valuing these within an inclusive learning environment. All learners will be accommodated, regardless of their physical, emotional, intellectual, or any other need. The Framework recognizes the different academic abilities of learners, considers individuals’ social and cognitive capabilities, needs and desires, and respects differences in the way children learn. The ultimate aim is to guarantee basic education for every learner according to their abilities and needs.

**Differentiated curriculum and learning**
Building on the principle of diversity and inclusion, the Framework ensures that curriculum content and instructional approaches are appropriate for all. It provides flexibility for teachers to adapt the curriculum to suit individuals and does not demand that every learner should learn the same content, in the same way, in the same number of hours, and at the same time.

**Parental empowerment and engagement**
Parents play a very important role in determining the success of their children’s education. They have a shared responsibility with schools to provide an enabling environment that is conducive to learning and motivates learners to fulfil their potential. The Framework provides opportunities for schools to empower parents to contribute to their children’s learning outcomes and to be engaged at all levels of their basic education.

**Community Service Learning**
Community Service Learning enables learners to apply their knowledge and skills while addressing real needs in the community. It integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities. Learners will work on real problems in order to make their academic learning relevant, while at the same time enhancing their social skills, analytical ability, civic and ethical responsibility, self-efficacy, and career development. Teachers will need to help learners to analyse what they have learned through participating in community service and how to apply what they have learned to their academic and personal development.
Competency-based approach (CBA)

Based on the findings of the needs assessment study, international best practice and a desire to make learning more meaningful, KICD resolved to adopt a competency-based approach (CBA) in the curriculum reforms. To facilitate effective conceptualization, design, and development of the competency-based curriculum, KICD curriculum specialists, quality assurance and standards officers, and Kenya National Examinations Council subject secretaries received a series of trainings on this approach from IBE-UNESCO, the British Council, experts in education and curriculum from local and international universities, and UNESCO. Furthermore, three curriculum specialists benefitted from the Post Graduate Diploma in Curriculum Design and Development course that is offered jointly by the Open University of Tanzania and IBE-UNESCO.

KICD conceptualized a competency as the ability to apply learning resources and outcomes (knowledge, skills, values, and attitudes) adequately in a defined context (education, work, personal, or professional development). A competency-based curriculum is a curriculum that emphasizes what learners are expected to do rather than mainly focusing on what they are expected to know. In principle, such a curriculum is learner-centred and adaptive to the changing needs of students, teachers, and society. It implies that learners can acquire and apply the knowledge, skills, values, and attitudes to solve situations they encounter in everyday life. Numerous countries are currently developing or revising their curriculum in light of the global trend emphasizing on 21st century competencies.

Through an analysis of the needs assessment report, the EAC curriculum harmonization framework and international best practices, KICD identified seven core competencies that every learner who goes through basic education will be expected to develop.

Core competencies

- Communication and collaboration
- Critical thinking and problem solving
- Creativity and imagination
- Citizenship
- Self-efficacy
- Digital literacy
- Learning to learn

Adoption of the appropriate pedagogy, subjects, learning areas, curriculum designs, schemes of work, textbooks, lesson plans, and other teaching-learning materials will be the vehicles through which the core competencies will be developed and experienced by the learners. The approach will make learning meaningful and provide opportunities to apply the competencies to real life situations, while also empowering them with skills for lifelong learning.

Developing competency-based curriculum

A major question that kept recurring during stakeholder engagement on adoption of a competency-based curriculum approach was how the curriculum would be designed to facilitate acquisition of the competencies and at the same time retain subject and learning areas. KICD addressed this by:

- Developing competency descriptors for all the seven core competencies;
- Developing level competency descriptors for all the levels of education. For example, a competency indicator for a grade six learner for critical thinking and problem solving would be, ‘Critically analyse statements made by adults and peers’;
Developing specific learning outcomes for each sub-strand in the learning areas and subjects. Subject panels were required to develop learning outcomes to focus on knowledge, skills, attitudes and value and to the application of learning in meaningful contexts. Each subject panel is made up of 20 individuals drawn among teachers, teacher trainers, university lecturers, officials of the Kenya National Examinations Council, Quality Assurance and Standards officers, KICD subject secretaries, and curriculum support officers;

- Developing suggested learning experiences that promote achievement of the competency descriptors;

- Developing key inquiry questions that promote inquiry based learning. This is expected to not only help in contextualising learning but to also enhance differentiated instruction. For example, the teacher can vary the inquiry questions for learners of different abilities while teaching the same concept; and

- Developing an assessment rubric for each of the sub-strands. A competency-based curriculum requires competency-oriented learning assessment, in which formative assessment (for and as learning) is a key feature, to complement summative assessment (of learning). In order to provide examination bodies and teachers with guidance on designing and implementing competency-oriented assessment, the subject panels were guided to develop indicators for each of the four performance levels: exceeding expectations; meeting expectations; approaching expectations; and below expectations.

**Organization of Basic Education**

Diagram 1 presents a diagrammatic representation of how basic education will be organized. The country will shift from a structure of 8 years of primary; 4 years of secondary; and 4 years of university (8-4-4) to 2 years of pre-primary; 6 years of primary; and 6 years of secondary education (2-6-6). The number of years for university and other post-secondary school training institutions will be determined by each programme offered, for example, certificate programmes will take a shorter time than university programmes. In addition, not all university programmes will take the same time, however there will be a minimum for all programmes.

The structure of Basic Education will be organized in three tiers as presented and described below:
Early years education

This tier will cover pre-primary 1 and 2 (ages 4 and 5) and lower primary education (grades 1, 2 and 3) (ages 6 to 8). Vision 2030 had recommended the mainstreaming of pre-primary education into primary education by 2010. This has been achieved with varying levels of success. The Framework will catalyse the achievement of this objective by:

- Designing the curriculum for pre-primary and lower primary education with seamless transition. The focus will be on foundation skills of literacy, numeracy and life skills.
- Encouraging all primary schools to start a pre-primary level.
- Designing pre-service teacher training for early years education to allow teachers to specialise in this tier.
Middle school education

This tier will cover upper primary education (grades 4, 5 and 6) (ages 9 to 11) and junior secondary education (grades 7, 8 and 9) (ages 12 to 14). This will be the longest tier in basic education and will provide learners with opportunities to understand their potential (abilities, interests, and aptitudes) while exploring a broad curriculum. This will prepare them for selection of an appropriate pathway and track in senior secondary education that is aligned to their career interests.

Senior school

This tier will cover grade 10, 11 and 12 (ages 15 to 17). At this level, learners will have a choice of joining one of three pathways: Arts and Sports; Social Sciences; or STEM. Each pathway will have specific tracks as outlined below.

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<thead>
<tr>
<th>Tracks</th>
<th>Tracks</th>
<th>Tracks</th>
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</thead>
<tbody>
<tr>
<td>1. Sports</td>
<td>1. Languages and Literature</td>
<td>1. Pure Sciences</td>
</tr>
<tr>
<td>3. Performing Arts</td>
<td></td>
<td>3. Technical and Engineering</td>
</tr>
<tr>
<td>5. Community Service Learning</td>
<td></td>
<td>5. Physical Education</td>
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<td></td>
<td></td>
<td>6. Community Service Learning</td>
</tr>
</tbody>
</table>

Table 1: Senior School Pathways

In each track, students will choose learning areas based on their aptitude, abilities, and career interests. Physical Education and Community Service Learning will be compulsory for all learners. The emphasis in each pathway and track will not be solely on the learning areas, but also on careers and entrepreneurship opportunities after senior school. There will also be emphasis on mentorship from successful people in the respective pathways and tracks.

Community Service Learning will be compulsory as it integrates classroom learning and community service that enables learners to reflect upon their experience and learn from the community, while at the same time enhancing their citizenship through service. Learners will have opportunities to:

- Apply their knowledge and skills in the community, providing age-appropriate and relevant services.
- Interact with, experience, and learn from the community.
- Develop employability skills, including responsibility, flexibility, and continuous learning through reflection.
- Promote their personal growth by forging strong and productive relationships.
Learners will also be expected to carry out at least 135 hours of community service outside the classroom time over the course of their three years in senior school education. This will be required for graduation from basic education, and will also be required for admission to higher education and training, including university.

**Mainstreaming of Pertinent and Contemporary Issues (PCIs)**

A major paradigm shift in the curriculum reforms is the recognition that simply teaching subjects or learning areas is not adequate for the achievement of the intended basic education learning outcomes. KICD planned the mainstreaming of pertinent and contemporary issues. The mainstreaming process entailed the following:

- Analysis of the national needs assessment report to identify pertinent and contemporary issues that Kenyans wanted captured in the reformed curriculum.
- International benchmarking (mainly desk review of frameworks) to identify important PCIs that may not have been captured in the national needs assessment.
- Collaboration with state and non-state organizations to develop a mainstreaming matrix for PCIs. The matrix is a framework that outlines the content to be taught for each PCI at each level of education. For example, for a PCI like Financial Literacy, the matrix specifies that at pre-primary 1, the child can be taught conservation of resources like water and delayed gratification. At senior secondary school grade 12, the learner will study, among others, how to calculate interest rates.
- The subject panel members who developed the curriculum for the various subjects and learning areas were trained on how to use the mainstreaming matrix.

Below is a table on the PCIs, which were grouped in six broad areas: Global citizenship; Health education; Life skills and values education; Education for sustainable development; Learner support programmes; Community Service Learning and parental engagement.

<table>
<thead>
<tr>
<th>Broad Area</th>
<th>Pertinent and Contemporary Issues (PCIs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Global citizenship</td>
<td>Peace education, integrity, ethnic and racial relations, social cohesion, patriotism and good governance, human rights and responsibilities, children’s rights and child care and protection.</td>
</tr>
<tr>
<td>2. Health education</td>
<td>HIV and AIDS education, alcohol and drug abuse prevention, lifestyle diseases, personal hygiene, preventive health, common communicable and chronic diseases.</td>
</tr>
<tr>
<td>3. Life skills and values education</td>
<td>Life skills, values, moral education and human sexuality.</td>
</tr>
<tr>
<td>5. Learner support programmes</td>
<td>Guidance services, career guidance, counselling services, peer education, mentorship, learning to live together, clubs and societies, sports and games.</td>
</tr>
<tr>
<td>6. Community Service Learning and parental engagement</td>
<td>Community service learning (entrepreneurship, financial literacy, citizenship, research) and parental empowerment</td>
</tr>
</tbody>
</table>

*Table 2: Pertinent and Contemporary Issues (PCIs)*
Special needs education

The Framework provides for nurturing the potential of learners with special needs. Education of learners with special needs will start with assessment to determine whether the learner should be placed in a special school, special unit, regular school, or home based programme.

Some learners with special needs (for example, learners with visual impairment, hearing impairment, physical disability, mild cerebral palsy, learning disabilities, emotional and behavioural difficulties, and communication disorders) will follow the regular curriculum with adaptations. In other cases, such as for gifted and talented learners, the curriculum will be enriched to ensure they are fully engaged and empowered.

The education of learners with special needs, who may not follow the regular curriculum, including those with mental disabilities, visual and/or hearing impairment, autism, cerebral palsy, multiple disabilities and profound disabilities, will focus on enabling them to live independently. The curriculum in this case will be stage based, not age based. They will study at the following levels of education, with transition dependent on demonstration of outcomes.

The process and implications of curriculum change

The question of ‘What does curriculum change imply?’ invites interest, varied ideas, criticisms, scepticism, and cynicism in equal measure. Questions like ‘Are these changes realistic?’, ‘Do you think a country like Kenya can implement such changes?’, ‘Are you sure teachers will change?’, ‘Are you sure that you will realise these changes?’ are very common in most forums where the curriculum reforms agenda is presented. Curriculum reforms, therefore, have to be undertaken with attention to both processes and products.

Management of the curriculum reform process

In order to ensure efficient and effective management of the curriculum reform process, KICD in collaboration with the Ministry of Education and the Presidency established the following structures:
The Cabinet Sub-committee is chaired by the Deputy President. The members include the Cabinet Secretary for Education, the Permanent Secretary, the State Department for Education, the Directors of Education in the Ministry of Education, and the Director of KICD. The committee receives policy briefs on the curriculum reforms and provides overall leadership.

The Parliamentary Committee on Education, Research, Science and Technology is a committee of the National Assembly that provides oversight on all education issues in the country. KICD provides policy briefs to this Committee for each milestone to get their concurrence on major reform issues.

The National Steering Committee is chaired by the Cabinet Secretary for Education. The Committee comprises of all major education stakeholders in the country, including religious organizations, teacher unions, officials of the Ministry of Education, the Kenya National Examinations Council, the Quality Assurance and Standards Directorate, the industry, universities, teacher training institutions, Kenya Private Sector Alliance, teacher trainers, and many other state and non-state organizations.

KICD Curriculum Reforms Technical Committee is an internal committee comprising of the officers in charge of the various levels and areas of education, including pre-primary, primary, and secondary education, teacher education, special needs education, and PCIs. The committee is responsible for preparing all the curriculum reform plans and documents, and providing technical guidance to the entire process. The committee reports to the Director of KICD and holds regular meetings with the rest of the Institute to update them on the reform process.

The KICD Curriculum Development and Approval processes are provided in the KICD Act of Parliament (2013). The Act requires that KICD constitutes subject panels for all learning areas and subjects; course panels, for all levels of education and training under KICD jurisdiction, to validate the curriculum; and an Academic Committee, which is the overall decision-making organ on all curriculum-related matters. The Academic Committee validates and approves the curriculum for implementation.

The reform process

Havelock and Hubberman (1978) argue that a major challenge in planning and implementing reforms in education is a tendency to formulate ambitious transformations without adequate plans on implementation. They also observe that in many countries curriculum change follows a heavy top-down approach. However, each stakeholder holds his own perspective to educational issues. Therefore, before pursuing curriculum changes, it is crucial for policy-makers and other stakeholders to have a thorough understanding of the roles, expectations and interests of the various actors, groups and institutions that are involved in, or affected by the change process (IBE-UNESCO, 2013). In a centralised governance system, like the one of Kenya, where the constitution assigns the curriculum function to the national government, curriculum planners have to find a cost-effective and efficient approach to ensure stakeholder participation.

In 2015, KICD developed a budgeted-roadmap for the entire curriculum reform process that was shared with stakeholders. This was a critical step because it helped to mobilise the necessary human and non-human resources to support the process. This was particularly important because KICD had engaged some local and international organizations and consultants, including IBE-UNESCO and the British Council, who needed to plan appropriately.
KICD planned to balance the top-down and bottom-up approach to the curriculum change. There was a place for both approaches for any successful change. It was a complex balance that required very meticulous planning. For example, does the participation of teachers, from all the 47 counties in Kenya, in curriculum design and development, qualify for a bottom-up approach? Certainly not entirely. The decisions arrived at the centralised ‘top’ have the participation of the ‘bottom’, and in many cases this is a cost-effective approach. The diagram below describes the relationship between the top-down and bottom-up approaches adopted in the Kenyan curriculum reform process.

![Diagram 2: Top-down and bottom-up approaches in the Kenyan curriculum reform.](image)

**Capacity development for curriculum developers**

IBE-UNESCO was instrumental in guiding KICD in conceptualizing the competency-based curriculum; training subject specialists (70), textbook publishers (53) and teacher trainers (29) on competency-based curriculum design; and developing a monitoring and evaluation framework (see more details in specific section below).

In particular, IBE-UNESCO carried out a series of training workshops, articulating the following key dimensions:

**Concepts, aspects of competency approach, issue of learning assessment, curriculum monitoring and evaluation**

Participants (professionals in charge of curriculum in their respective domains) commented that there was already a lot of knowledge application in the system, to facilitate the acquisition of competencies. However, formative assessment was not regulated, in the absence of clear assessment criteria and sufficient teacher training. Participants reached the agreement that to ensure effective implementation of the curriculum reform, KICD should further collaborate with the Kenya Examinations Council and the Teacher Service Commission.
Competency approach in teaching strategies, methods and learning materials

An existing textbook was assessed in terms of its strengths and weaknesses from a competency viewpoint. Participants agreed that KICD should develop criteria for competency-based textbooks to guide publishers.

Problem-solving in competency approach

Participants were guided to develop or adapt a problem-solving activity in different subject domains, specifying knowledge needed, task instruction, timeframe, assessment rubric for students, etc.

IT and competency approach

Participants were led to identify effective ways of using IT to implement a competency curriculum approach.

Re-writing typical knowledge objectives as competencies

Participants were guided to develop sample teaching-learning-assessment methods and materials for learners in a given context, which were jointly reviewed and submitted to KICD.

Collectively creating criteria checklists

These would be created for (1) a competency-based textbook and (2) a competency-based lesson plan/learning process. Participants were guided to generate such criteria checklists with priority ranking as follows.

Checklist for a competency-based textbook

<table>
<thead>
<tr>
<th>RANK</th>
<th>CRITERION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Should help learner to develop knowledge, skills, and attitudes.</td>
</tr>
<tr>
<td>2</td>
<td>Should have learner-centred activities.</td>
</tr>
<tr>
<td>3</td>
<td>Be adaptable to learners with special needs and abilities.</td>
</tr>
<tr>
<td>4</td>
<td>Embraces enquiry-based and discovery based techniques.</td>
</tr>
<tr>
<td>5</td>
<td>Has age appropriate content, language, and activities.</td>
</tr>
<tr>
<td>6</td>
<td>Includes case studies of relevance to the learner.</td>
</tr>
<tr>
<td>7</td>
<td>Has probing questions promoting problem-solving and critical thinking.</td>
</tr>
<tr>
<td>8</td>
<td>Contains assessment activities (both formative and summative).</td>
</tr>
<tr>
<td>9</td>
<td>Contains appropriate/familiarized/contextualized illustrations.</td>
</tr>
<tr>
<td>10</td>
<td>Builds on prior knowledge.</td>
</tr>
<tr>
<td>11</td>
<td>Should have competencies relevant to the situation.</td>
</tr>
<tr>
<td>12</td>
<td>Caters for emerging issues.</td>
</tr>
<tr>
<td>13</td>
<td>Conforms to curriculum framework and syllabus.</td>
</tr>
<tr>
<td>14</td>
<td>Integrates concepts from related content areas.</td>
</tr>
<tr>
<td>15</td>
<td>Draws upon learners' different skills.</td>
</tr>
</tbody>
</table>
Checklist for a competency-based lesson plan/learning process

<table>
<thead>
<tr>
<th>RANK</th>
<th>CRITERION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Targets are not only related to knowledge, but also to application, attitudes, values and skills.</td>
</tr>
<tr>
<td>2</td>
<td>Contextualizes learning with resources from environment.</td>
</tr>
<tr>
<td>3</td>
<td>Has more formative than summative assessment.</td>
</tr>
<tr>
<td>4</td>
<td>Includes elements of problem solving.</td>
</tr>
<tr>
<td>5</td>
<td>Is more learner- than teacher-centred.</td>
</tr>
<tr>
<td>6</td>
<td>Integrates ICT (as learning or information resource).</td>
</tr>
<tr>
<td>7</td>
<td>Makes pace of learning individual.</td>
</tr>
<tr>
<td>8</td>
<td>Has language emphasized, level-appropriate, and interactive.</td>
</tr>
<tr>
<td>9</td>
<td>Requires creative and critical thinking.</td>
</tr>
<tr>
<td>10</td>
<td>Uses approaches that are flexible and adaptable.</td>
</tr>
<tr>
<td>11</td>
<td>Integrates learning from other subjects.</td>
</tr>
<tr>
<td>12</td>
<td>Employs collaborative learning.</td>
</tr>
</tbody>
</table>

Through these trainings, participants were enabled to (1) further communicate on the concept of competency-based approach, (2) use concrete tools (sample methods and materials), and (3) replicate the sample drafting experience in their actual curriculum development tasks.

Curriculum change cycle

KICD developed a curriculum change cycle that would guide the process, which is illustrated Diagram 3 on the next page.
1. National needs assessment study

KICD undertook a national needs assessment in January 2016. The data was collected from benchmarking studies, desk reviews and respondents of data collection tools, including questionnaires, interview guides, observation schedules and focus group discussions. The findings of the needs assessment study were the basis for development of the Basic Education Curriculum Framework. The Framework was developed over a period of three months by the KICD Curriculum Reforms Technical Committee, with support from an external expert. This is the blueprint that will guide the reforms.

2. Policy formulation

Policy formulation entailed presentation of the Basic Education Curriculum Framework to varied stakeholders to determine the viability of the Basic Education Curriculum Framework. Several sessions were held to present the Framework, culminating in the national stakeholders’ conference held in January 2017, and which endorsed the Framework for the curriculum reforms.
3. Curriculum designs

Considering that the anticipated paradigm shifts in the curriculum reforms would be far reaching and many, and in the interest of developing the curriculum designs with a manageable group, KICD started the process by developing curriculum for the early years education tier first. The lessons learned from this process will be used to develop the designs for the other tiers.

As required by the KICD Act (2013), KICD constituted and convened subject panels for all the learning areas and subjects offered in the early years education tier and special needs education panels for the foundation level.

Prior to convening the subject panels, the KICD Curriculum Reforms Technical Committee held a meeting to prepare training materials that would be used in the training of all the panel members on the Basic Education Curriculum Framework and competency-based curriculum approach, specifically with respect to:

- The Basic Education Curriculum Framework;
- Core-competencies and development of generic and level competency descriptors;
- Developing learning outcomes that are both subject general and specific developing strands and sub-strands/themes;
- Developing scope and sequence charts (KICD had developed a scope and sequence chart template that subject panels would adapt);
- Mainstreaming PCIs (KICD had developed matrices for each of the PCIs outlining the content to be taught in each class);
- Developing curriculum designs (KICD had developed a curriculum design template that subject panels would adapt);
- Appropriate pedagogy for teaching a competency-based curriculum; and
- Appropriate assessment approaches for a competency-based curriculum.

Curriculum designs, pedagogy and assessment would facilitate translation of the competencies into learning experiences that promote acquisition of the core competencies.

In January 2017, KICD started the curriculum writing process by training all 20 panel members for all subjects and learning areas, in early years education, for seven days. During the training, 12 individuals were identified based on their ability to grasp the concepts required to develop a competency-based curriculum. These panel members were requested to develop scope and sequence charts for two weeks. The panel members were allowed a break of two weeks, after which they were recalled to develop draft curriculum designs for two weeks. This activity was concluded at the end of March 2017.

The eight subject panel members who were trained but did not participate in the development of the scope and sequence charts and curriculum designs would be invited to edit the curriculum designs in April, 2017. KICD planned to seek the services of several experts to comment and give inputs to assure the quality of the curriculum designs. The designs would then be presented the Course Panels and Academic Committee for validation and approval in May 2017.
4. Development of curriculum support materials

Curriculum support materials entail learners’ course books, teachers’ guides, and other print and non-print resources for supporting the curriculum interpretation and implementation. There will be a variety of materials required and which will be developed for as long as the reformed curriculum will be implemented. However, KICD will collaborate with partners to develop learners’ course books and teachers’ guides to be used for the early years education pilot. This will be done between May and July 2017. The materials will be used to train teachers from the pilot schools. KICD will use the lessons learned to develop the criteria for vetting and evaluation of course books, teacher’s guides and other materials from the publishers.

5. Teacher preparation

Considering that the curriculum design has adopted a competency-based curriculum approach, among a host of many other paradigm shifts, capacity building of teachers on interpretation and implementation of the reformed curriculum is imperative.

KICD has organized to train teachers from the pilot schools on the meaning and appropriate pedagogy for the core competencies. The teachers will be expected to experiment with implementing the core-competencies and the related pedagogy by using, first, the current curriculum content. They will then be trained on the revised curriculum content, to ensure that they are not overwhelmed with many changes.

6. Piloting

At the early stages of sharing the Basic Education Curriculum Framework and the reforms roadmap, there was some resistance to the idea of piloting the curriculum. Some of those who opposed to it argued that this would make children guinea pigs, while others argued that it would delay national roll out. However, through explanations on the value of the pilot, there is consensus in the country that the pilot is imperative. The pilot activities, like training quality assurance and standards officers, head teachers and teachers began in May 2017 and are ongoing.

KICD plans to innovate with the pilot in a number of ways:

I. Kenya has 47 counties and KICD intends to select pilot schools from all the counties. This will enhance participation in the national rollout phase. 470 schools have already been selected using the following criteria:
   - 1 urban private and 1 urban public pre-primary schools in each of the 47 counties.
   - 1 urban private and 1 urban public primary schools in each of the 47 counties.
   - 1 rural private and 1 rural public pre-primary schools in each of the 47 counties.
   - 1 rural private and 1 rural public primary schools in each of the 47 counties.
   - 1 special needs education pre-primary and primary schools in each of the 47 counties.

II. County Directors of Education, Teachers Service Commission County Directors, Kenya Primary Schools Heads Association (KEPSHA) representatives from the 47 counties participated in the selection of pilot schools.

III. The pilot schools will be empowered and supported to not only pilot the curriculum, but to evolve into centres of excellence, which KICD will use to show case how the reformed curriculum will be implemented.

IV. Through an online platform that KICD will develop, teachers will give their feedback on the curriculum and share their experiences in the implementation of the curriculum with other teachers. They will be encouraged to post their lessons online for other teachers to learn from, and even adapt. Through this approach, KICD will create professional learning communities among teachers of same and different tiers and subjects, hence making them co-creators of the curriculum. This approach will promote a peer-led rather than a top-down approach to curriculum innovations.
7. National rollout

Based on the findings of the pilot, KICD will collaborate with other stakeholders to develop a robust national teacher capacity development programme, which will blend face-to-face and online approaches. Consultations are ongoing about timelines for the national rollout.

8. Monitoring and evaluation

Ideally, a curriculum (in its diverse dimensions) should be monitored and evaluated in a systematic and planned way (IBE-UNESCO, 2015):

- based on clear purposes and scope;
- at different levels in the education system: classroom, school, region, country levels;
- using valid and reliable data;
- within a clear quality framework;
- by suitably qualified and experienced people; and
- by both internal and external evaluators, to ensure neutrality.

Monitoring and evaluation will facilitate improvement of the pilot before national roll out. KICD is collaborating with IBE-UNESCO to develop a comprehensive Monitoring and Evaluation Framework. IBE-UNESCO has facilitated a workshop for KICD research teams to conceptualize and outline the Framework, entailing the identification of core components for monitoring and evaluation, the use of logic model of monitoring and evaluation, as well as sample success measures for current reform.

Monitoring will facilitate continuous collection of data to assess progress towards achievement of the pilot objectives and expected outcomes. Evaluation will be conducted at the end of the pilot to establish the efficiency and effectiveness of the pilot.

KICD will engage local and international universities to conduct comprehensive monitoring and evaluation of the curriculum and the reform process. There will also be research studies conducted within the pilot and national rollout phases to facilitate sharing the learnings with local and international audiences.

Conclusion

The curriculum reforms process has provided invaluable opportunities for KICD to learn. There are still many lessons to learn as the reforms are still in the formative stages. This reflection paper is a useful chance to reflect on the journey that the Institute and the country had embarked on, and to unfold next steps. The journey has allowed the Institute to address the relationship between the theory and practice of curriculum reforms, and particularly to adopt and apply a competency-based curriculum approach. This is a journey that every country that plans curriculum change goes through. There are experiences that will be similar to those of Kenya, and others that will be very different. ‘To be forewarned is to be forearmed’ – sharing experiences can help illuminate the way for those who plan to undertake similar reforms.
References


