



Re-Energizing Gender Learning in the Context of the Competency Based Curriculum in Kenya

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Abstract

This paper is informed by a desk review of research reports, policy document, books, journal papers and other online resources focusing on gender learning and Competency Based Curriculum (CBC). An informal discussion of the data that arose from the desk review was done with six gender experts of balanced gender from Women Educational Researchers of Kenya (WERK), mainly for purposes of quality control. The paper sheds light on gender learning as well as the key principles of CBC in Kenya. It highlights gender inequalities, biases and stereotypes in Kenyan schools and communities, and how they are perpetuated through school. Additionally, the paper demonstrates how CBC could promote gender learning, equality and equity. In this connection, a reflection is made on how girls could be supported in STEM, how community service learning provides a perfect avenue for gender learning and the question of textbook review for gender learning. Among other recommendations, clear policies on gender ought to be developed to guide CBC activities.

Key Words: Gender learning, Competency Based Curriculum, Community Service Learning, Teacher Training, Textbook Review

Background and Introduction

Gender Learning

Research demonstrates that boys and girls join school when they have already learned a whole range of 'things', from their families, media and peers, concerning patterns of behaviour, attitudes and roles associated with their sex. It is in the family that primary socialization, which leaves a permanent mark in the lives of children happens, as boys and girls consciously and unconsciously learn from their parents, siblings, relatives, friends and the media the family is exposed to (Seifert & Sutton,

Undated). Through this primary socialization, gender stereotypes, inequalities, and injustices are knowingly and unknowingly perpetuated, as a whole range of societal expectations for boys and girls in regard to physical behaviours, social interaction, academic motivations, behaviours and choices are learnt. The learning process at these initial stages of life plays a key role in shaping the kind of men and women children would become in their future lives in the community (Mandela & Muyaka, 2020).

Gender learning does not stop at the family level, but continues as children join school and spend a reasonable amount of their time interacting with peers in curricular and co-curricular activities under the guidance of the teacher, and as they also get influenced through the hidden curriculum in numerous ways. A mixed gender school environment is a fertile ground for gender learning. In the modern society, most teachers have heard about the need to be gender responsive, hence strive to involve boys and girls equally in their lessons and other school activities. However, gender stereotyping, inequality and injustice, having been deeply entrenched in the lives and experiences of adult members of the society, including teachers, for many years, end up manifesting themselves and being perpetuated in ways that go beyond the expectation and understanding of teachers. For instance, some teachers have often been found to unknowingly engage boys more than girls during lessons, even when they understand that girls ought to be treated equally. This has been attributed to a whole range of factors, including the fact that boys have been found to speak out more, and the teacher finds it difficult to ignore them. It has also been observed that the boys can sometimes be more restless than girls when they are made to sit down for a long period of time, hence are more likely to find themselves in mischievous behaviour that may not be ignored by the teacher, among other things (Seifert & Sutton, Undated).

Additionally, the teacher may praise girls more than boys for good behaviour, while underplaying the correct responses they give during lessons, which sends a wrong signal that good behaviour, is more important for girls than academic excellence. Similarly, there are situations where boys have been over-praised for giving right answers and not blamed for wrong behaviour. This wrongly suggests that the boys are academically superior, which is not always the case (Seifert & Sutton, Undated). The boys are not always on the 'favoured' side, they have sometimes been over-criticized for bad behaviour. In fact, they tend to get harsher punishment than girls even when the mistakes committed by the two genders are comparable. Such violence perpetuated against children, especially boys in school, has been reported in the Value-Based Education (VBE) study of 2015, where Wamahiu *et al*, vividly discuss cases of boys being beaten on the buttocks, mercilessly hit against the walls, kicked and boxed, as girls face lighter punishment for similar mistakes. This kind of behaviour by teachers promotes gender learning in the negative sense. Researchers have also demonstrated that boys often gain publicity over girls in school as a result of the teachers' tendency to openly address them either positively or negatively in front of other students, and yet talk to girls privately over their shoulders or in closed spaces.

The role of the hidden curriculum in shaping gender has been widely discussed in the VBE study with girls tending to deputize boys in leadership and being encouraged by teachers to work hard so that their education can help them should they fail to find husbands to marry them in future (Wamahiu *et al*, 2015). This finding portrays a wrong impression that for the girls, marriage is the

ultimate goal, with education only coming in as an alternative plan should marriage fail to happen. Generally, the expectation by the society to have women largely depend on men in regard to decision making and provision of basic needs, is what sometimes increase the vulnerability of women and their tolerance to all forms of abuse against them, since they end up with limited choices in life. In some schools, girls have been observed preparing meals for the teachers, in cases where the school cook was absent, as lessons go on (Wamahiu, Ochieng, Limboro & Muyaka, 2015). Sadly, the girls see cooking for teachers as a favour since it gives them the opportunity to partake of the meals. The worst case scenarios involve teachers, who are supposed to protect the girls, perpetrating gender based violence against them (Ochieng, 2016). This, in a way, is teaching the girls that the behaviour of the teacher towards them is acceptable.

Gender learning continues even outside the school environment when boys and girls come face to face with members of the wider community engaging themselves in various roles fairly or unfairly assigned to men and women by the society. In Kenya, for example, thousands of school children who commute to school every day use public transport service, popularly known as ‘matatu’, where they witness male domination of the industry, and portrayal of behaviours associated with arrogance, toughness and irresponsibility. Unfortunately, the victims of the misbehaviour of ‘matatu’ touts are mainly girls and women, who are perceived as weak and incapable of defending themselves. Under the watch of school boys and girls, ‘matatu’ crew, who represent the adult community members expected to serve as role models to children, have used misogynistic language, contributed to unnecessary crowding in the streets, played loud music against the wishes of passengers, fought, unfairly hiked fares and mistreated passengers (Mutongi, 2006). Behaviours such as these send wrong signals to boys, who may associate masculinity with irresponsibility and perpetration of violence against girls and women. Similarly, girls learn tolerating violence and injustice targeted at them thinking that it is supposed to be the societal norm. It is useful to research how schools, through the new Competency Based Curriculum (CBC) in Kenya would navigate gender learning that occurs within the community as they strive to promote greater equality, equity, inclusivity and social justice. This research gap comes with the realization that, schools are already taking learners to the community through Community Survive Learning (CSL) as a CBC requirement. Consequently, learners are already coming face to face with the gender inequalities, inequities, stereotypes and injustices that are rife in the wider community, hence faced with the danger of replicating them through learning activities. This is one of the reasons that made undertaking this study necessary.

Is the Gender Agenda Bearing Fruits in Kenya?

Over the past few decades, efforts to realize gender equality and equity have been deliberate around the globe. The gains realized in bridging the gender gap between men and women vary from country to country depending on a whole range of factors; the pace at which the gender agenda is pushed, the policies and legal frameworks in place, the leadership behind the efforts and the amount of resources committed for the course, among other things. The differences in the pace of pushing the gender agenda across countries, and within the same country over time, have been clearly documented in the EM 2030 Bending the Curve Report of March 2020, that focused on five key gender equality targets; access to contraception, girls education, political leadership, workplace equality laws and safety. Accordingly, almost half of the 129 countries studied, with an

approximate population of 2.1 billion girls and women, may not achieve any of the five key gender equality targets by the year 2030 if they keep their current pace of pushing the gender agenda. While high income countries have done far better than low income ones on gender equality, the report indicates that several developed nations seem to be stagnating or experiencing reversals in progress on some of the five key gender issues studied. This is a clear indication that, it is not yet time for the global community, including Africa, to lower their guard in the efforts to bridge the gender gaps and successfully address injustices.

Some Sub-Saharan countries are already demonstrating that, with commitment, rapid change in the achievement of gender equality and equity is possible. For instance, the access to contraception for girls and women moved from 12% in 2000 to 69% in 2018 in Rwanda. In Ghana, only 5% of girls completed secondary school in 2003 but 40% did twelve years later.

Kenya has progressive policy and legal framework in regard to entrenching gender equality. Notably, equality of everyone, including women, before the law, is emphasized in article 27 of the Constitution of Kenya. Similarly, the Vision 2030 development blue print puts equality into consideration. The document recognizes that, unless men and women of all categories, including those living with disability and the youth, gain equal access to public services and make a solid contribution to the economy, meaningful economic development may remain a pipe dream. In regard to the health of women, the community health policy and sessional paper No. 2 of 2017 on the Kenya Health Policy 2014-2030 have been firmly put in place. They are meant to, among other things; promote safe deliveries through free maternity services. In order to promote the economic empowerment of women, Kenya has come up with special catalyst funds from which women could benefit. They include Women Enterprise Fund that offers micro-finance credit to women, Youth Enterprise Development Fund for young men and women who wish to establish businesses and Uwezo Fund that focus on special interest groups. Currently, there are talks concerning how the three funds could be made more beneficial with suggestions of collapsing them into 'Biashara Fund' being advanced. Other useful policies driving the gender agenda include: the National Human Rights Policy and Action Plan; the Marriage Act 2014; the Matrimonial Properties Act 2013; the Land Act 2016 and the draft National Policy on Gender and Development (Kobia, 2019).

Despite this progressive policy and legal framework, gender inequalities, biases and stereotypes are still evident in communities around Kenya. Women are still underrepresented in key leadership positions that touch on decision making and policy formulation, including membership of National Assembly and Senate (Akech, undated). Researchers have pointed out the existence of an unresolved gap between policy and the reality of lived experiences of women in Kenya as seen in other African countries such as South Africa, hence gender inequalities persist (Akala, 2019a). While Kenya is succeeding in narrowing the gap between boys and girls in regard to enrolment in primary schools, gender skewing is still prevalent in public higher education institutions in terms of throughput, completion rates, areas of study (with girls struggling to access and achieve in STEM) and enrolment in postgraduate studies (Akala, 2019b).

While there exist boys and men who suffer marginalization in Kenya, and who should not be ignored because they may not be directly responsible for the historical injustices, the gender

inequalities in education disadvantage a larger percentage of women in several other spheres of their lives. Women with low levels of literacy end up failing to benefit from privileges available for them, such as affirmative action funds in Kenya, since they lack the capacity to access and understand information about the programs that are meant to empower them. In fact, women who lack sufficient education may not be confident enough to walk into an office or financial institution and make inquiries on how they could get help. In cases where the women with low literacy levels are lucky to access the funds, they may still lack sufficient knowledge and skills to successfully initiate and manage business enterprises. While the affirmative action funds organizers are aware of this gap and offer training on the utilization of funds to the beneficiaries, the low educational levels of trainees remain a hindrance to the achievement of the objectives of such trainings and programs. Women have been seen buying household furniture and dresses immediately they are awarded business loans, without thinking about how they ought to utilize the funds to grow themselves and their families economically and repay the government loans.

When women fail to access good quality education, they lack the potential to understand their purpose, value, rights, and the channels they can use to pursue justice when their rights are violated. Consequently, the women with low literacy levels are likely to condone the various forms of abuse and discrimination they face in the society, hence continue suffering in silence. This points to the need of courageous and empowered men and women to advocate for change and speak on behalf of the disadvantaged girls and women.

It is little wonder that marginalized communities, including Arid and Semi-Arid Lands (ASALs), remote communities, and communities ranked relatively high on poverty rates and doing badly on education of girls, are the worst hit with gender inequalities, biases and stereotypes (GEC WWW Project Baseline Report 2014; GEC-WWW Project Baseline Report 2014, Wamahiu, Ochieng, Limboro & Muyaka 2015). Research demonstrates that gender inequalities, biases and stereotypes are easily and sometimes unknowingly perpetuated through the day to day curricular and co-curricular activities of the school as well as the hidden curriculum (Wamahiu *et al*, 2015). In particular, it has been established that textbooks and learning material, as well as community service learning (CSL) activities, greatly influence gender perspectives of learners and they could make the bad gender situation worse if they are not properly analysed and reviewed for gender responsiveness. One major gender stereotype that must be erased from education systems, both locally and internationally is the association of boys with science, technology and mathematics (STEM) and girls with humanities and languages (Njoka, Obura, Obiero, Kemunto & Muraya 2013; Chartfield, 2019). There is need to renew efforts in pushing the gender agenda, especially at this time when there are major reviews in the Kenyan education system and the curriculum, to ensure that the education system empowers girls across the curriculum, including through STEM, in order to redress the continuing gender imbalance in society.

Accordingly, it would be useful for Kenya to keep advocating for quality education of girls, without excluding boys, as they implement the CBC curriculum. Questions have to be asked about the role of the CBC in helping girls and women discover their purpose, worth and potential, and gain courage to make use of their talents and abilities for the betterment of themselves, their families and the larger society. Care must be taken to avoid grossly disadvantaging boys and men in the course of

developing the girls, if boys are to embrace gender equality and play their role of ensuring that they walk alongside their sisters, engage meaningfully with them, and become their partners in search of a better life (Mandela & Muyaka, 2020).

Understanding CBC IN Kenya

The CBC in Kenya was rolled out in the year 2017, beginning with the pre-primary and lower primary levels, and officially launched in 2019. It is being implemented under a new system of education that will see learners take 2 years in pre-school, 6 years in primary school, 3 years in junior secondary and a further 3 years in senior secondary before they can join universities and/or other tertiary institutions. The CBC under the new system of education is taking over from the content based 8-4-4 system, where learners have been spending 8 years in primary schools, 4 years in secondary school and at least 4 years at the university. The 8-4-4 system of education has been accused of being examination oriented and channelling students into the few traditional careers, without taking into consideration the diversity of talents and abilities existing among learners. The VBE study found schools being driven by the 'mean score' culture to promote the values of hard work and commitment among students, whose main focus was the summative examination that had promoted the spirit of competition among schools nationally (Wamahiu *et al*, 2015). This finding exposed a useful gap in regard to learning of values in the 8-4-4 system. A good education system ought to encourage learners to do the right thing because it is the right thing to do. Accordingly, such a system would be opposed to rote learning and memorization for the sake of passing exams. This is one of the gaps that the CBC seeks to bridge in Kenya.

The CBC in Kenya conceptualizes a competency as an ability to apply learning resources and outcomes (knowledge, skills, values and attitudes) adequately in a defined context (education, work, personal or professional development). Rather than focussing on what learners are expected to know as was observed in the 8-4-4 system, the emphasis is shifting to what they are expected to do. The CBC framework in Kenya is based on several guiding principles; Opportunity, Excellence, Diversity and Inclusion, Differentiated curriculum and learning, Parental empowerment and engagement, as well as Community Service Learning (Ochieng, 2019).

The implementation of the CBC in Kenya is bringing about changes in a number of basic education components. With the vision of producing an engaged, empowered and ethical citizen, the CBC in Kenya seeks to nurture every learner's potential with the understanding that no learner is a failure. This calls for value-based education that fosters love, respect, responsibility, unity, peace, patriotism, social justice and integrity among learners. The theoretical approaches at the centre of these changes include: Vygotsky's social-cultural development theory, which looks at human development as a socially mediated process in which children collaboratively dialogue with more knowledgeable members of the society in the process of acquiring their cultural values, beliefs and strategies for solving problems (Mcleod, 2020). This has been used alongside Piaget's Cognitive development theory, Bruner's cognitive development theory, Hattie's visible learning, and Dewey's social constructivism. The seven core competencies to be fostered by CBC include; communication and collaboration, critical thinking and problem solving, creativity and imagination, citizenship, digital literacy, learning to learn and self-sufficiency.

The change from the content based curriculum to the CBC in Kenya has been occasioned by a number of factors. First is the need to address the weaknesses of the content based 8-4-4 system of education that has been accused of being rigid and offering limited opportunities that channel students to few traditional careers and yet there exist diversity of talents and skills among students which remain unidentified, untapped and undeveloped. Accordingly, the CBC is geared towards making learning enjoyable through provision of variety of activities that would enable teachers identify and nurture the potential and talent of every learner to prepare them for the world of work (Sifuna & Obonyo, 2019). Second is the growing need for Kenyans to integrate with the East African Community and do business and other activities together. This calls for a curriculum that will enable learners think broadly, utilize their talents and do what is right because it is the right thing to do, even when no one is watching over them. In fact, in line with the Sessional Paper No. 14 of 2012, the East African Community Partner states have adopted a common policy of shifting focus from standard curriculum design while harmonizing education systems and training curricular to CBC and assessment approach (East African Community, 2012, Sifuna & Obonyo, 2019). Consequently, the partner states came up with a framework for a harmonized curriculum that matches the global trend in 2013, that is, the CBC.

Other reasons that necessitated major changes in the Kenyan system of education in general and the curriculum in particular, include the need to work towards achieving the United Nations Sustainable Development Goals, which also puts inclusivity and gender equality into focus. Like other African nations, Kenya is also making reference to the agenda 2063, in its efforts to contribute towards transformation of Africa into the global powerhouse of the future, hence curriculum changes. Additionally, the Kenya Vision 2030 that is meant to accelerate transformation of Kenya into a rapidly industrializing middle income nation by 2030, points towards reforms in various sectors, including education, in a manner to enable the country achieve its development goals. Kenya is also in need of aligning with the international best practices, while helping its male and female learners acquire the 21st century skills that would enable them thrive rather than survive in a rapidly changing digital world. This necessitated a new system and curriculum that would help impart in the learners skills relating to problem solving, team work and analytic reasoning.

This paper argues that there is need for the new education system and curriculum in Kenya, to renew its energy and focus on empowering both boys and girls across the curriculum, including through STEM and Community Service Learning (CSL), in order to redress the continuing gender imbalance in society. The paper contends that the Competency Based Curriculum (CBC) in Kenya has the obligation to promote gender learning, equality and equity through appropriate review of textbooks and other learning material, use of well thought out CSL activities and overt encouragement of girls to compete favourably with boys in STEM. The paper also sets out to demonstrate how the CBC in Kenya has the potential for significantly contributing to the development and strengthening of value-based education which respects gender equality and equity.

Research Methods and Procedures

Desk Review

This paper is guided by a desk review of a number of international and local documents touching on gender and competency based curriculum. Firstly, international research reports available online were reviewed to get a global overview of gender inequality and inequities and the trends in the efforts to bridge the gender gaps. For instance, the report by Equal Measures 2030 (EM2030) entitled *Bending the Curve Towards Gender Equality by 2030* was carefully read. Notably, the richness of this report partly resulted from partnership and networking of many organizations that were involved in its production. They included: The African Women's Development and Communication Network, Asian-Pacific Resources and Research Centre for Women, Bill and Melinda Gates Foundations, CLADEM, data 2xO, International Women's Health Coalition, KPMG, ONE, Plan International and Women Deliver. Another useful international report that shaped the ideas in this paper is *Drawing the Future (2018)* which is basically an exploration of career aspirations of learners in primary schools around the world with gender lens that helped capture a clear picture of what boys and girls would like to become and what shaped their thinking on how their future lives should be like.

Locally, reports of studies conducted by Women Educational Researchers of Kenya (WERK) over the years, were among the major documents informing this paper. They include WWW Qualitative Study 1, herein cited as Wamahiu, Ochieng, Limboro and Muyaka(2015) and WWW Qualitative study 2, which were done for a period of over three years as a component of a larger Girl Education Challenge (GEC) project dubbed *Wasichana Wote Wasome* (WWW), which means Let all girls learn. The WWW project was financed by Department of International Development (DFID) and implemented by a consortium of organizations namely; Girl Child Network (GCN), Centre for British Teachers (CfBT), Concern Worldwide and Anada Marga Universal (ARMUT). Women Educational Researchers of Kenya (WERK) played the role of research, monitoring and evaluation. The project aimed at improving enrolment, retention, attendance, and learning outcomes for over 81,000 girls in marginalized communities in 7 counties in Kenya. They included; Turkana, Samburu, Marsabit, Kwale, Kilifi, and the informal settlements of Nairobi and Mombasa.

Another WERK-led study report that has been widely referred to is the Value Based Education (VBE) qualitative study of 2015, herein cited as Wamahiu *et al* (2015), that was done in schools sampled across all the 47 counties in Kenya. This study utilized a sample of over 13,000 participants and analysed over 5,000 social media posts and comments. Over 700 individuals contributed to the project as researchers and data collectors, among other capacities. The VBE study was led by WERK and supported in many ways by the Ministry of Education, Science and Technology, from its inception to the end. The study revealed a lot in regard to positive and negative values that Kenyan schools knowingly and unknowing inculcate in their learners through curricular, co-curricular and extra-curricular school activities as well as the hidden curriculum. This touched on gender issues that were learned and perpetuated through schools by members of the school and communities around the schools. The involvement of the author, as a researcher, in the WERK studies reviewed contributed to her good understanding of the fieldwork experiences and research findings related to gender and CBC.

Published research papers and journal articles on gender and CBC provided a valuable reference point for this paper. In this regard, Akala's 2019 paper laid bare the inequalities that are still rife in education in Africa using the Kenyan and South African examples. To help understand what school children are learning from the community, Mutongi's 2006 work on *matatu* (public transport) operators, who form part of the adult world from which school children learn gender roles as they commute to and from school was quite useful. Sifuna and Obonyo 2019 as well as Amunga, Were and Ashioya 2020 among other related papers were timely in describing the implementation of CBC in Kenya with the related gendered challenges.

This paper has benefited from the legal and policy documents touching on gender that are published online. They include the Constitution of Kenya 2010, the Vision 2010, Kenya Health Policy 2014-3030, National Human Rights Action Plan and National Policy on Gender and Development, among others that have been cited in the various sections of the paper. Various books on gender, including the 2020 edition of *The Nexus of Culture and Christianity: Complexity of Masculinity* in Africa that was recently co-authored by this author were great sources of information. As a result of the in-depth desk review that was made easy by availability of various resources online, she easily came up with an informed position on various aspects of gender learning which have been carefully integrated and interwoven in the discussion presented in different sections of this paper. Consequently, well thought out conclusions and recommendations on how CBC could be used to narrow, if not close the gender gaps in Kenya are made.

Data Collection Procedure

Data used in writing this paper was mainly collected from resources available online as well as physical library books and material. The first step to locating online sources was deciding on the key questions that the paper set out to answer. The questions focussed on how CBC could be used to re-energize gender learning in Kenya through:

1. Promoting Girls in STEM
2. Community Service Learning
3. Textbook Review

To ensure that these questions were sufficiently answered, it was necessary for the paper to help the reader understand gender inequalities and inequities in the Kenyan community in general and schools in particular, comprehend ways in which the inequalities were perpetuated. Similarly, some discussion of the key components of the new CBC in Kenya was necessary.

The second step was to come up with key words that helped the researcher find material and resources that could speak to the research questions from different search engines and websites including those of the Kenyan government, research institutions, libraries, journal articles and open educational resources. The key words included CBC in Kenya, gender learning, gender inequalities, girls in STEM, gender pedagogy, community service learning, among others. Thousands of resources came up and the researcher took time to scan and skim through to select the ones that were relevant to the key research questions. Some useful online websites, such as that of WERK, were already known to the researcher and that made it easy for her to access their material.

The third step focussed on setting the relevant resources aside, reading them thoroughly, reflecting on their content as it related to the research questions and making comprehensive notes while taking note of the resources used for purposes of citation. The fourth step involved locating relevant library books and resources through the help of Kenyatta University Librarians. The library resources were read and relevant notes taken.

The fifth step was engaging six gender experts (three men and three women) from WERK, each of them separately, in rich informal discussions around the views and issues that emerged from the desk review in the context of gender learning and CBC in Kenya. The main purpose of the informal discussion was for quality control. However, notes from the discussions were also taken to guide the author's reflections on the various ways through which CBC could re-energize gender learning.

Ethical and Logistical Considerations

The sources of information used in this desk review have been cited accordingly and links to the actual research reports, journal papers, open educational resources and policy documents available online provided. Confidentiality and anonymity was observed where gender experts were involved in some of the discussions that yielded data for this paper.

Data Analysis and Report Writing

Data collected from the various sources was cleaned, sieved through and organized in line with the questions that that the study sought to answer. The relevant findings were discussed and well interwoven with the researcher's own reflections and arguments. The discussion helped the author to point out the gaps in gender learning in regard to pedagogy, classroom interactions, girls in STEM and textbook content among other areas. She then provided guidance on how the identified gaps could be closed and gender learning enhanced in the context of CBC in Kenya. Conclusions and recommendations on how CBC could be used to re-energize gender learning in Kenya were made based on the findings. The report was written in a narrative form.

Results and Discussion

The CBC as an Opportunity for Gender Learning

Encouraging Girls in STEM

An international study, *Drawing the Future*, (2018), shows more boys than girls aspiring for STEM related careers, something that is often shaped by gender specific ideas in the children's social environments from early years. Over four times the number of boys compared to girls in the study aspired to become engineers, and nearly double the number of boys than girls wanted to become scientists. The situation is not different in Kenya, where Njoka *et al* (2013) have documented persistent low participation and performance of female students in STEM subjects at secondary school level. The CBC in Kenya has a good opportunity to correct this international phenomenon by use of a number of strategies. Firstly, at this point in time when numerous curriculum material are being reviewed for CBC, overt encouragement of girls in STEM subjects should be firmly and explicitly rooted in the curriculum design, teachers' guides and pupils' materials. This calls for the Kenya Institute of Curriculum Development (KICD) to closely guide and train publishers, writers

and illustrators in STEM and other instructional materials in order to include a gender perspective appropriate for STEM education in line with the CBC goals. The encouragement of girls in STEM should not be done in a manner to create another challenge by grossly excluding boys. In fact, boys should be seen as partners, and treated as such in promoting the participation of girls as their sisters, schoolmates and classmates, in STEM.

Secondly, the CBC in Kenya should encourage the publication of a variety of supplementary materials to promote girls in STEM. This may include booklets for various levels of education as well as digital material by individuals and organizations that are qualified to advise on gender mainstreaming in the curriculum. The role of organizations such as WERK and institutions of higher learning such as Kenyatta University, which has an established 'Centre for Gender Equity and Empowerment' partly lies here. These are just some of the many organizations in Kenya, which have rich gender expertise among their staff and members, with long experience in handling collaborations and partnerships that can influence positive change in policy and implementation of CBC in Kenya.

Thirdly, public education institutions that work on improvement of STEM performance in Kenya, such as Centre for Mathematics, Science and Technology Education in Africa (CEMASTEA) ought to realize that this is one of the moments that the gender agenda has to be pushed with renewed energy, pace and focus through CBC. This way, Kenya will not witness stagnation and reversal on gains made in realizing gender equity and equality as it is already being witnessed in some developed nations (EM 2030 Bending the Curve Report, March 2020). There is a good chance to include the girls' agenda in STEM during the on-going curriculum reforms and in-service teacher training at both basic and higher education levels.

Fourthly, the government of Kenya ought to design special support programmes for transiting girls and women from secondary school and tertiary institutions into STEM related work, without grossly disadvantaging boys and men. This will motivate more girls and women to pursue STEM courses. It has been a common phenomenon for parents and their children to ask themselves questions regarding what they shall do with the qualification, in terms of job market, after receiving training. The WWW qualitative studies by WERK, demonstrates that girls fail aspiring for and joining certain careers and professions due to lack of sufficient role models in the fields ((Wamahiu, Ochieng, Limboro & Muyaka, 2015,). Availability of work opportunities for women in STEM gives learners a chance to observe both female and male role models, hence become motivated to pursue STEM.

Lastly, there is need to update the previous research on: girls' performance in relation to that of boys in STEM; gender analysis of instructional materials, and women's roles in STEM education leadership and research. Fresh gender responsive research needs to be carried out in these areas. This calls for universities and organizations that focus on gender and women welfare to partner more substantively in future with the Ministry of Education (MOE), Kenya National Commission for UNESCO (KNATCOM), Kenya Institute of Curriculum Development (KICD), Teachers Service Commission (TSC) and National Research Fund (NRF), among other institutions, to produce evidence based findings and recommendations that will inform the continuing implementation of

Community Service Learning as an Avenue for Gender Learning

Community Service Learning (CSL) is a proposed learning area for senior secondary school under CBC in Kenya, and it is also currently being utilized as a teaching and learning approach in primary schools where CBC is already being implemented. If well utilized, CSL will provide valuable encounters with real life experiences, where gender inequity and inequality are rife. This new learning area should be actively used to promote gender learning through teachers seizing the opportunity for learners to observe, identify, discuss, analyse and, in time, attempt to counter gender stereotyping and inequality in the community. Gender learning in this regard will be a two way process, where learners will learn from activities and engagements of members of the community, and community members will also learn from the gender responsive learning activities and programmes of the learners in the community.

Through CSL, girls have a good chance to learn not only how to collaborate with their fellow girls but also with boys. Similarly, boys should learn to collaborate with boys and with girls. This could be achieved through CSL groups alternating between mixed and single sex groups, to provide opportunities for within-gender and cross-gender collaboration. Through CSL, teachers should purpose to help girls and boys learn how to engage meaningfully and live side by side. The teachers ought to remember that upon the learners graduating from school, they will come face to face with others of opposite gender as parents, friends, siblings, workmates and spouses, among other relationships. As Kenya prepares secondary schools for CBC, the question of having single sex schools, which sometimes channel girls into humanities and boys into STEM, should be carefully addressed, even if such schools form a small percentage. A mixed gender environment, with a variety of learning areas to choose from, and a wide range of co-curriculum activities, would provide a rich environment for gender learning while achieving the CBC objectives. Teachers in mixed gender schools have a responsibility to ensure that boys and girls get opportunities to engage as partners in the learning process. Cases have been observed where such schools form single gender streams to minimize the interaction of boys and girls.

In some mixed gender schools, especially religious sponsored schools in North Western part of Kenya and refugee camp schools, where the author has researched intensively, gender clustering that could work against positive gender learning, has been observed. Boys and girls in such schools, though in the same classroom, have been made to sit in separate single gender clusters with instructions to avoid looking at the opposite gender side (Ochieng, 2010). While there is nothing wrong about learners working in single gender groups, the CBC in Kenya ought to encourage gender mixing if schools have to reflect the reality in the society. Community Service Learning, as conceptualized in CBC, would provide a good avenue for achieving this objective.

To mitigate the gender stereotype of looking at leadership as a masculine 'thing', boys and girls should be assisted to alternate practising leadership roles and other activities traditionally considered masculine during CSL. Research, exemplified by Wamahiu, *et al* (2015) on VBE and the WWW qualitative studies, has reported cases of primary school children of both gender in Kenya, portraying men and not women in leadership positions, in their drawings, narratives and

arguments. In practice, cases of girls tending to deputize boys in school leadership positions or failing to offer themselves for election to top student council positions until teachers come up with an affirmative action arrangement, have been recorded. This could be partly because many children have not seen enough women occupying leadership positions from their own communities (Wamahiu, Ochieng, Limboro & Muyaka, 2015).

Community Service Learning should be designed to give learners a chance to meet and partner with male and female professionals from different fields. The professionals should help the learners see the meaning and relevance of subjects taught in school to both genders to help tackle stereotypes, and ensure that girls would not begin ruling out options. One of the ways through which schools can achieve this is creating awareness to parents in regular school meetings and encouraging professionals of both gender, among them parents, to volunteer partnering substantively in CSL activities. In fact, Amunga, Were and Ashioya (2020) point out that successful implementation of CBC will require that teachers work together with parents in a number of areas, some of which may go beyond the classroom. Among other things, parents will need to provide support in form of guidance in learning activities beyond CSL, ensure that there is conducive learning environment for their children and provide the necessary material for learning. Similarly, Wamahiu *et al* (2015:179), in the VBE study argue that:

The role of the family must be recognized... One way of bridging the gap would be to involve parents in the teaching of values to children in the school through telling stories that have morals. Another way would be to engage parents together with their children in community service.

Despite the significant role of parents in the teaching and learning process, Sifuna and Obonyo (2019) observe that the participation of parents in learning activities as envisaged by the CBC has not been fully realized. Many parents, who have not been well inducted on CBC still wonder why schools would expect them to participate in the education of their children, and yet they pay school fees for teachers to carry out the teaching exercise. This weak parent teacher nexus could be one of the reasons that complicated the take-off of CSL, as envisaged by MOE and Teachers Service Commission (TSC) in an attempt to engage learners who were idling during school closures that were occasioned by the Covid-19 pandemic. Despite discussing it through media platforms and engaging ministry of education officers in the preparations, CSL never happened during Covid-19 school closures, until the government began phased re-opening of schools amidst the pandemic.

It is often said that actions speak louder than words, hence children are likely to learn better through observing what adults do rather than what the adults tell them to do. This can be applied to gender learning through CSL, whereby the services provided to the community by learners should be designed to ensure that men/boys and women/girls benefit equally or in an equitable manner. This will be yet another learning experience relating to gender. In the past years, cases have been observed where resources have been inequitably distributed across gender in families and the community, with women being grossly disadvantaged. In many African families for instance, the priority of serving best meals, including best cuts of meat has been given to the men in the family while women and children eat poor quality meals, starve or patiently wait for left-overs from men

(Mandela & Muyaka, 2020).

In other instances, ownership of valuable resources such as land (title deeds) and land produce (even where women have provided labour) have been unfairly allocated to men under the watch of young boys and girls, who learn to accept the gender inequalities, biases and stereotypes as a normal and acceptable way of life in the community. Girls who witness such happenings are likely to tolerate discrimination and abuse in their future lives while boys in similar situations would grow up to consider it normal, treating girls and women as less equal. This is the situation that the CBC in Kenya, through CSL and strong support from well sensitized parents and community members, should purpose to correct rather than replicate.

Textbook Review for Gender Learning

Research done internationally and in Kenya demonstrate that textbooks and learning materials often contribute to reinforcement of stereotypes about the roles of men and women in the society (Obura 1991, Chartfield, 2019, Drawing the future 2018 & Malova 2012). Accordingly, men are mainly depicted as scientists, holding political and leadership positions, businessmen, policemen and doctors as seen in Kenya. Women on the other hand are either seen at home taking care of their children and husbands, or portrayed in nurturing professions such as teaching and nursing. Additionally, the male gender outnumbers the female gender in usage of characters portrayed in photographs and firstness in dialogue even where the authors of such textbooks are women (UNESCO Global Education Monitoring Report, 2016, Malova 2012). In regard to characters, animals which are powerful, wild and potentially dangerous such as dragons, bears and tigers are often referred to as 'hes' while smaller and vulnerable creatures such as birds, cats and insects are portrayed as 'shes' (Chartfield, 2019). In history textbooks, the term man is used to refer to both men and women, thereby overshadowing the visibility of women. Similarly, in the Holy Bible, God is depicted as "He." Books and learning material shape people's minds in a powerful way. They convey not only knowledge but also social values and political identities and an understanding of the world.

The CBC in Kenya has a great opportunity to review textbooks with gender perspectives in mind, to open young minds to the types of careers available for them and enable them aspire to become. The budgetary and logistical implications of doing this would be minimized, given that textbook reviews are already underway in connection with alignment to CBC goals. The implications of this necessary change to KICD and the MOE is preparation of elaborate assessment checklists, tools and criteria for identifying gender stereotypes in textbooks, and ensuring inclusivity and equal representation of men and women in all areas shown in learning material. In fact, KICD needs to partner with publishers, the quality assurance department, MOE, universities and colleges to ensure quality training of writers in regard to gender. The MOE, informed by research, should purpose to promote the best interests of boys and girls through learning material and textbooks, and not merely tolerate lack of discrimination. Sufficient time ought to be allocated for preparation of gender responsive quality curriculum material for all levels of learning. A situation was observed where some of the pre-primary and primary school curriculum material were poorly printed or went unedited due to hurried implementation of the curriculum which overstretched writers and publishing houses (Sossion, 2017; Sifuna & Obonyo, 2019). It would be prudent to avoid repeating

this kind of mistake, in the future process of implementing CBC in Kenya, since that may cost the country huge losses in regard to time, finances and energy, if they decide to make the necessary correction, yet leaving the material uncorrected would distort learning.

Beyond gender, textbooks also ought to be used as an avenue for promoting positive values for men and women in the community. There has been a tendency for masculinity sometimes being unconsciously associated with irresponsible and reckless behaviour such as fighting, having multiple sexual partners and drug abuse. Femininity on the other hand has been linked to vulnerability, inability, subordination, innocence and being taken advantage of (Ochieng, 2010). Through CBC textbooks that seek to promote value-based education, boys and girls ought to be assisted to understand positive values and their role in upholding the same regardless of their gender.

The CSL needs to be well grounded in gender theory, purposeful and well structured. Overall, the CBC in Kenya should aim at promoting gender equality in a manner that would go beyond affirmative action for girls and women in educational activities, services and programmes. While affirmative action in education and other public and private affairs is good for bridging the traditional gap between men and women, Ohide (2020) argues that it should be seen as a temporary solution to a deeper gender inequality and inequity challenge. Women and girls will do better if they are given the right view of who they are and what they can do. The CBC in Kenya is well positioned to do this. The MOE, KICD and other stakeholders in Kenya need to understand that the identity of an African girl has been scarred by a bad cultural view of who a woman is, and simply giving a quota to restore their identity and dignity may not provide a lasting solution. Education stakeholders need to understand that, like men, women have the potential to ably and successfully serve their communities in any capacity, but they are often obstructed by a culture, especially in Africa, that treat boys more favourably than their sisters. It is in this context that Ohide (2020: 24) argues thus:

Perhaps the best way to support women to genuinely participate in the building of a nation should be providing a proper view of who a girl child is in comparison to the boy child, and then investing in quality education for both girls and boys at early age.

This paper contends, that community service learning, textbook review and meaningful pre-service and in-service teacher training, support and development, will be a great avenue to develop many girls and boys whose potential has been buried due to cultural prejudices and unfavourable economic conditions.

Conclusion and Recommendations

This paper makes the following conclusions and recommendations;

1. Textbook review, CSL learning area and the STEM pathway at senior secondary school are identified as prime opportunities for rejuvenating gender learning and promoting gender equity and equality through CBC in Kenya.
2. It would be necessary for the MOE, KICD and teacher education institutions in Kenya to incorporate comprehensive gender studies into pre-service and in-service programmes,

and in this instance, in courses relevant to STEM, CLS and preparation of textbooks and learning material, to ensure gender responsive pedagogy in the implementation of the CBC in Kenya.

3. The training of publishers and writers on how to entrench gender is also necessary.
4. Clear policies on gender ought to be developed to guide all CBC activities including the distribution and equipping of STEM schools for boys and girls, preferably mixed schools, designing of CSL activities and preparation of learning material and textbooks.

References

- Akala, B. (2019a). Affirmative action for gender justice in South Africa and Kenyan education systems. *Africa Education Review*, 16(5), 1-15. Retrieved from: <https://www.tandfonline.com/doi/pdf/10.1080/18146627.2017.1406807?needAccess=true>
- Akala, B. (2019b). Gender inequality in education is still an issue in Kenya and South Africa. *The Conversation*. Retrieved from : <https://theconversation.com/gender-inequality-in-education-is-still-an-issue-in-kenya-and-south-africa-125747>
- Akech, A. (Undated). Gender Equity: Kenya at Crossroads. *Society for International Development (SID)*. Retrieved from : <https://www.sidint.net/content/gender-equity-kenya-crossroads#:~:text=by%20Akoko%20Akech.&text=Women%20make%20only%2010%20percent,20%25%20women%20representation%20in%20parliament>
- Amunga, J., Were, D. & Ashioya, I. (2020). The teacher-parent nexus in the Competency Based Curriculum success in Kenya. *International Journal of Educational Administration and Policy Studies*, 12(1), 60-76. Retrieved from: <https://academicjournals.org/journal/IJEAPS/article-full-text-pdf/0B4906263660>
- Chatfied, G. (2019). *How Gender Stereotypes in Children's Books Shape Career Choices*. RSA. Retrieved from: <https://www.thersa.org/discover/publications-and-articles/rsa-blogs/2019/03/gender-books>
- Drawing the Future, (2018). *Exploring career aspirations of primary school children from around the world*. Retrieved from: <https://www.educationandemployers.org>
- East African Community (EAC). (2012). *Regional report on the harmonization of the East African systems and training curricula*. Arusha. EAC.
- EM2030, (March, 2020). *Bending the curve towards gender equity by 2030*. Retrieved from: <https://data.em2030.org/wp-content/uploads/2020/03/EM2030BendingTheCurveReportMarch2020-1.pdf>
- Girl Education Challenge (2015). *Wasichana Wote Wasome Project Baseline Report*. WERK.
- Kobia, M. (2019). Blog: Kenya's milestones in Accelerating gender equality and women's empowerment. *The Commonwealth*. <https://thecommonwealth.org/media/news/opinion-kenya-milestones-accelerating-gender-equality-and-womens-empowerment>
- Malova, C. (2012). *Portrayal of Gender Roles in Kenyan Secondary School Textbooks: An Ethnographic View with Special Reference to English*. Unpublished MA Thesis. University of Nairobi.
- Mandela, R. & Muyaka, J. (2020). *The Nexus of Culture and Christianity : Complexity of Masculinity in Africa*. Utafiti Foundation.
- Mcleod, S. (2020). *Lev Vygostky's Socio-cultural Theory*. SimplyPsychology.Org

- <https://www.simplypsychology.org/vygotsky.html#:~:text=Vygotsky's%20theories%20stress%20the%20fundamental,process%20of%20%22making%20meaning.%22&text=Vygotsky%20has%20developed%20a%20sociocultural%20approach%20to%20cognitive%20development>.
- Mutongi, K. (2006). Thugs or entrepreneurs? Perceptions of matatu operators in Nairobi, 1970 to present. *Africa: Journal of the International African Institute*, 76, (4), 549-568. Cambridge University Press. <https://www.jstor.org/stable/40027298?seq=1>
- Njoka, E., Obura, A., Obiero, C., Kemunto, E. & Muraya, D. (2013). *Analysis of Persistent Low Participation and Performance of Female Students in Science, Mathematics and Technology Subjects at Secondary Level in Kenya: The Way Forward*. Nairobi: Kenya National Commission for UNESCO.
- Obura, A. (1991). (Year of publication). *Changing Images: Portrayal of Girls and Women in Kenyan Textbooks*. Nairobi: ACTS.
- Ochieng, R. (2016). The culture of early sex and schooling of girls in Kilifi County, Kenya, *British Journal of Education*. 4(7), 1-12. Retrieved from: xxxxxxxxxxxxxxxxxxxxxx
- Ochieng, R. (2010). *Gender and HIV/AIDS Education in Multicultural Context of Schools at Kakuma Refugee Camp and the Surrounding Host Community*. Unpublished PhD Thesis. Kenyatta University.
- Ochieng, R. (2019). *The Competency Based Curriculum in Kenya: An Opportunity for Gender Learning and Gender Equity. A Memorandum Submitted to the Task Force on Implementation of the Competency Based Curriculum In Kenya*. WERK.
- Ohide, D. (2020). *Education for Destiny: The personal story of a young man intent on following his own dreams and how God found and transformed him*. Utafiti Foundations.
- Ondimu, S. (2018). *Teacher Preparedness for the Implementation of the Competency Based Curriculum in Private Pre-Schools in North Dagoreti Sub-County, Nairobi City, Nairobi*. Unpublished Med Project. University of Nairobi. Retrieved from: http://erepository.uonbi.ac.ke/bitstream/handle/11295/104613/Ondimu_Teachers%E2%80%99%20Preparedness%20for%20Implementation%20of%20the%20Competency%20Based%20Curriculum%20in%20Private%20Pre-schools%20in%20Dagoretti%20North%20Sub-county%2C%20Nairobi%20City%20County.pdf?sequence=1&isAllowed=y
- Seifert, K. & Sutton, R. (Undated). *Educational Psychology*. Retrieved from: <https://courses.lumenlearning.com/suny-educationalpsychology/chapter/gender-differences-in-the-classroom/> CC BY: Attribution.
- Sossion, W. (2017). *Teacher Preparedness for the Implementation of the Competency-Based Curriculum in Pre-Primary and Lower Primary Grades in Kenya*. Nairobi. Kenya National Union of Teachers.
- Sifuna, D. & Obonyo, M. (2019). Competency Based Curriculum in Primary Schools in Kenya: Prospects and Challenges of Implementation. *Journal of Popular Education in Africa*. 3(7), 39-50. Retrieved from: <https://kenyasocialscienceforum.files.wordpress.com/2019/09/pdf-daniel-sifuna-mark-obonyo-competency-based-curriculum-in-primary-schools-in-kenya-prospects-and-challenges-of-implementation.pdf>
- UNESCO (2016). *Global Education Monitoring Report*.
- Wamahiu, S., Ochieng, R., Limboro, C. & Muyaka, J. (2015). *Education, Empowerment and*

Marginalization: Do Schools Empower Girls? Case Studies of Selected Schools in Nairobi and Kilifi Counties Kenya. WERK. <https://werk.co.ke/wp-content/uploads/2019/02/WWW-Qualitative-Study-Report-Education-Empowerment-and-Marginalisation-Do-Schools-Empower-Girls.pdf>

Wamahiu, S.P.; Watola, C.; Bunyi, G.; Ferej, A.; Angoye, J.; Rimbui, Z., Kariuki, W.; Chege, J. and Waweru, H. (2015). *Value-Based Education in Kenya: An Exploration of Meanings and Practices. Synthesis Report.* WERK. MOEST. <https://werk.co.ke/wp-content/uploads/2019/02/Value-Based-Education-Synthesis-Report.pdf>

WWW qualitative study 2 (2016). *Education, Empowerment and Marginalization: Is the Community the Girls' Hope?* WERK. <https://werk.co.ke/wp-content/uploads/2019/02/WWW-Qualitative-Study-2-Education-Empowerment-and-Marginalisation-Is-the-Community-the-Girl%E2%80%99s-Hope.pdf>