

Comparison of General Education Curriculum Development and Implementation across Selected Countries: Searching Good Experiences for Ethiopia

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Abstract

The purpose of this study was to compare the curriculum framework of selected countries with Ethiopian general education curriculum and to forward suggestions for the improvement of curricular activities in Ethiopia. Data was collected from document (curriculum framework and education policy guidelines) review, personal experience and interview with educators. Findings of the study were discussed by comparing similarities and differences with the Ethiopian educational system. The components of discussion have included educational structure of selected countries, curriculum competency, principles of curriculum framework development, areas of learning and subjects, pedagogy or teaching methodology and strategies, assessment and evaluation mechanisms, teachers' professional development and medium of instruction. The study revealed that there are good practices in each country's curriculum policy and some of these were commonalities with Ethiopia and shown again Ethiopian educational policy and curriculum framework should strengthen reforms like competency based curriculum models. Education sector development program and curriculum framework of Ethiopia was critically investigated in the case of learner-centered methods of teaching and continuous assessment. These are ways to apply competency based curriculum in primary and secondary schools. One of the good suggestions investigated from this study appropriate for Ethiopian educational curriculum development was medium of instruction and language policy. To improve the learning outcome of students in Ethiopia primary and secondary schools critically reviewing medium of instruction, the influence of home language on medium of instruction and other variables related with bilingualism and multilingualism should be revisited.

Key Words: Curriculum; Curriculum Framework; Competency Based Curriculum; General Education; Areas of Learning; and Medium of Instruction

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1. Introduction

Education has been described differently by different scholars of the field. According to Nyagah G. (2010) education is defined as a process of acquiring the desirable knowledge, skills and attitudes to fit well in and become a useful member of that society. The term education means “to draw out”, i.e. facilitating realization of self-potential and latent talents of an individual. The teacher thus uses the curriculum to bring out the best of learners (Esayas, 2018).

Education has a variety of functions like intellectual function; productive function; social function; and individual development. These all and other functions of education are based on the curriculum because it is the nucleus of education. The term curriculum has been defined in different ways and there is no universally accepted definition for it. According to Dufera (2004), the definition of curriculum is placed on a continuum from the narrow focus to the broad. The narrow focus is one that defines curriculum as a plan for discipline or course of study. In its broader sense, however, the curriculum is considered to be everything that transpires in the course of planning, teaching, and learning in an educational institution.

Approaches of the conceptualization of curriculum are both technical (product-oriented) and nontechnical (process-oriented). Some of technical approaches were:

Dewey J. (1902). Defined as Curriculum is a continuous reconstruction, moving from the child's present experience out into that represented by the organized bodies of truth that we call studies . . . the various studies . . . are themselves experiences they are that of the race. Bobbitt F. (1918). Defined as Curriculum is the entire range of experiences, both directed and undirected, concerned in unfolding the abilities of the individual. Nontechnical approach viewed it like, "curriculum is defined as a combination whole including philosophical perspectives, the learner's and teacher's experience, instructional methodologies, and expected and unexpected outputs acquired within a learning institution".

Curriculum or especially educational curriculum can be classified in various ways. Some of these were general education curriculum (it includes pre-primary education, lower and upper primary education, middle education, secondary and senior secondary education), TVET, higher education, teacher education, adult and non-formal education, distance education. Design and development of curriculum framework, curriculum materials have been based on a country's education policy, constitution, socio-economic status and other national and international priorities and crosscutting elements.

This study was intended to make analysis of Ethiopian Middle education curricula within a country and across to dig out good opportunities and critical challenges regarding educational curriculum implementation and to imply ways for the improvement of curricula development implementation in Ethiopia.

2. Research Questions

The article of this study was intended to answer the following two questions:

1. What are/were similarities and differences between Ethiopian general education curriculum and other selected countries?
2. What will be taken as good suggestions from international experiences of education to improve the quality and relevance of the educational curriculum of general education for present and future generations?

3. Method and Materials

The study adopts qualitative approaches and methods. Sources of data were personal interview with four educators, document review, selected primary school observation, personal experience and literature. The collected data were analyzed using thematic content analysis within the Ethiopian educational system and abroad to synthesize what looks like educational curricula of Ethiopia with respect to other countries.

4, Discussions, Comparisons and Analysis of Educational Curriculum

The comparisons and discussions were included educational structure; aims, goals and objectives of curricula; principles of curriculum development; competencies of curriculum; areas of learning and subjects; pedagogy; language policy of education and instruction; teachers professional development ; curriculum evaluation; and inclusiveness of educational curriculum.

4.1 Educational Structure

Table 1: Comparison of Educational Structure

Country	Educational Structure
Kenya	3+3+3+3 (lower-primary-upper primary-lower secondary-senior secondary): Kg (age 4-5), grade 1-3 (age 6-8), grade 4-6 (age 9-11), grade 7-9(age 12-14), and grade 10-12 (age 15-17)
Korea	Elementary grade 1-6, middle school 1-3 grade high school grade 1-3
England	Present Key Stage model (2-4-3-2), Age 5/6-15/16
Maldives	Foundation 4-5 years LKG & UKG primary two stages with key stage 1 grade 1-3 (age 6-8) and stage two stage two grade 4-6 (age 9-11); lower secondary two stage KS3 grade 7 and 8 (age 12-13), KS4 GRADE 9 AND 10 WITH (age 14 1nd 15); and higher secondary KS 5 grade 11-12 (age 14-17). (2-3-3-2-4)
Kosovo	5-3-4 Pre-primary education (grade 0 age 5-6 year); primary education grade 1-5 with standard age 6-10, lower secondary education grade 6-9 with standard age 11-14 and upper secondary grade 10-12 with standard age 15-17.
China	Primary education- six years; junior secondary education three years and senior secondary three years=entrance examination. (6-3-3). Primary and junior education are compulsory. Students enter from junior secondary and senior secondary to TVET.
India	pre-school three years, age- 3-6 and class 1 &2 two years age 6-8; class 3-5 age 8-11; class 6-8, age 11-14; class 9-12, age 14-18) or pre-primary and class 1 and 2 foundational; class 3-5 preparatory; class 6-8 middle education; class 9-12 secondary. (5-3-3-4)
Samoa	Year 1-3, year 4-8, year 9-11 and year 12-13 (3-4-3-2)
Timor-Leste	She was organized along a 6-3-3 model of Primary Education (6 years), Pre-Secondary (3 years) and Secondary (3 years). This has now changed to a system of Basic Education, which is compulsory and encompasses the first nine years of schooling ¹⁰ followed by 3 years of Secondary Education. Age 3-5 enrol pre-primary (6-3-3 to 9-3).
Australia	primary school: seven or eight years, starting at Foundation (kindergarten) through to Year 6 or 7, secondary school: four years from Years 7 or 8 to 10, senior secondary school: two years from Years 11 to 12 (6-4-2 or 7-3-2)
Ethiopia	6-2-4 post 1994; 4-4-2-2 in 1994; and 6-2-4 currently under way or beginning (2018/19).

Educational structure of countries presented on Table 1 has similarities and differences. All countries' educational systems and structures recognize pre-primary or kindergarten education with age and length of year's variation. Pre-primary education or foundation stage has been included 3-6 years depending on countries, it may take one up to three years and both public and private sectors were involved. The structure of primary and secondary education is named in different ways like lower primary, upper primary, middle education, lower secondary, senior secondary and upper secondary. Standard years of all levels were listed in each country; almost all listed countries' general education has been inclined in between 6 up to 18 years. Educational systems of all countries indicated that each changed the structure of general education based country education policy change or reform.

Historical background of curriculum development and learning areas in Ethiopia

Table 2 Comparisons of Subjects of Grade 7 & 8, Three Regime Educational Curriculum

	Regime	Assisted by	Subjects in grade 7&8
1	Haile Sillase (1930-1974)	American-Oriented Curriculum (1950s-1974)	History, Geography Mathematics Science and Health, Amharic, Language Concentration, English Language skills, Physical Training, Music, Domestic Science, Agriculture, Commercial training, Guidance & Student Activities and Supervised Study
2	Dreg (1974-1991)	Socialist-oriented (1974-1991) -The General Polytechnic Education, (School Experimental program) 1988-1991	Amharic, English, mathematics, Science geography, history, politics, agriculture, home economics and sport science. School experimental program: - Amharic, Mother tongue, English, Mathematics, Environmental Science, History, Geography, Civics, Biology, Physics, Chemistry, Physical Education, Music, Arts, Polytechnic instruction · Handicraft, Agriculture, Technical Drawing, Productive technology and Home Economics.
3	EPRDF (Post - 1991) 1991-2019/20	Assisted by different international organizations to improve quality, equity and efficiency of education.	Amharic, English, Mathematics, Physics, Chemistry, Biology, Social studies, Civics and Ethical Education, Mother tongue and Sport science (*Some Private schools have used other subjects like ICT and foreign languages

Collected from different sources

The areas of learning and subjects of middle education of Ethiopia have implied that there was a change of educational curricula after the change of governmental system. In Ethiopia currently, new curriculums have started in all primary education and middle education. The newly reformed curriculum framework of general education has added new subjects and combined three natural science subjects for middle education (grade 7 and 8. (MoE, 2020). These are Career and Technical Education, Information technology and Performing and Visual Arts

4.2 Curriculum Aims, Goals and Objectives

Table 3 Comparisons of Educational/Curriculum Goals/Objectives

Country	Goals or objectives of education or curriculum
Kenya	<ul style="list-style-type: none"> <input type="checkbox"/> promote the social, economic, technological and industrial needs for national development <input type="checkbox"/> promote sound moral and religious values. <input type="checkbox"/> promote social equality and responsibility. <input type="checkbox"/> promote respect for and development of Kenya's rich and varied cultures <input type="checkbox"/> promote international consciousness and foster positive attitudes towards other nations. <input type="checkbox"/> promote positive attitudes towards good health and environmental protection.
2 Korea	<ul style="list-style-type: none"> <input type="checkbox"/> Cultivate a challenge-seeking spirit and creative thinking capabilities based on basic abilities and problem-solving skills needed for learning and daily living. <input type="checkbox"/> Develop attitudes to understand and appreciate diverse cultures in Korea and other countries based upon experiences in one's surrounding community. <input type="checkbox"/> Develop qualities and attitudes as democratic citizens who respect and communicate with others based on a sense of community
Kosovo	<ul style="list-style-type: none"> <input type="checkbox"/> the development of personal and national identity, statehood and cultural belonging; <input type="checkbox"/> the promotion of general cultural and civic values; <input type="checkbox"/> the development of responsibility for themselves, for others, for society and for the environment; <input type="checkbox"/> Preparation for life and work in the context of social and cultural changes; development of entrepreneurship and use of technological skills; <input type="checkbox"/> Preparation for lifelong learning.

The objectives curriculum or education listed on Table 3 have directly and indirectly incorporated two things. The Ethiopian curriculum has also been explored in supportive ways. The aim of the Ethiopian general education curriculum is to produce citizens who have the competence essential for life, further learning and the world of work (MoE, 2020).

The reform of curriculum should bottom up. But some countries make the top down. Curriculum reforms in Pakistan have remained a top down process and lack prior need assessment, broader consultation with stakeholders and piloting before framing a final draft. It should be based on need assessment output. The need assessment of Pakistan was based on the following elements.

- compulsory core subjects for each level of education*
- the elective subjects for each level of education*
- the optional subjects for each level of education*
- subjects examinable and non-examinable at each level of education*
- time allocation for all compulsory, elective and optional subjects as well as co-curricular and extra-curricular activities (Pakistan, 2016).*

Moreover, the criteria listed in the curriculum framework provided suggestions about localization and national standards. Thus, the ways the provinces/areas may review the existing scheme to adjust it to their local requirements and needs of their students but keeping in view the national standards and uniformity as well as the global trends.

4.3 Principles of Curriculum Framework Development

Table 4: Comparison of Framework of Curriculum Development Principles

	Country	Principles
1	Kenya	opportunity, excellence, diversity and inclusion, differentiated curriculum and learning, parental empowerment and engagement, balance between formative and summative assessment
2	Maldives.	Islam (The National Curriculum is underpinned by Islamic values, principles and practices.; Identity and Culture; Human Rights, Democracy and Justice; Holistic Development; Personal Excellence; Inclusivity; Preparation for Life; and Relevance
3	Kosovo	inclusion, development of competences, integrated and coherent teaching and learning, school-level autonomy and flexibility, responsibility and accountability
4	Samoa	Equity, Quality, relevance and efficiency

The principles of the four countries curriculum framework provided very high attention for humanistic perspectives, development of learner and society's and social justice. The only difference is the terminologies and statements used. A principle of the Ethiopian general education curriculum has also complemented these. According to MoE (2020), the principles include use of science and technology, provide diverse skills, use indigenous knowledge and values, ensure relevance, promote integration and cohesiveness, promote national unity in diversity, provide for inclusiveness, and apply learner-centered learning. These principles are ways to achieve key principles presented in Samos curriculum framework and in others implicitly explained.

4.4 Competencies of Curriculum

Table 5: Core Competencies among Countries

	Country	Competency
1	Kenya	Collaboration and communication; critical thinking and problem solving; imagination and creativity; citizenship; digital literacy; learning to learn; and self-efficacy.
2	Maldives	Practicing Islam; Understanding and Managing Self; Thinking Critically and Creatively; Relating to People; Making Meaning; Living a Healthy Life; Using Sustainable Practices; and Using Technology and the Media
3	Kosovo	Communication and expression; competency in thinking; competency in learning; competency in life, work and environment-related areas; personal competency; and civic competency.

As indicated by UNESCO - IBE (2017), competency refers to the ability to use learned knowledge, skills and attitudes appropriately in real situations and contexts and within a defined set of values. There are similarities among competencies mentioned in three countries in the case of explaining 21st century skills. Maldives curriculum framework priorities practice Islam due to educational policy principles of a country. According to MoE (2020), the core competencies expected to be developed by all learners at all levels in Ethiopia are learning to learn, critical thinking and problem-solving, creative-thinking and innovation, communication, collaboration, leadership and decision-making, digital literacy, and cultural identity and global citizenship.

Competency of curriculum in 21st century related with the ways how curriculum implementers conceptualize the models of curriculum. It needs to analyse content/knowledge based curriculum versus competency based

curriculum and rationale of each. Some international experiences are discussed in the following sections including conceptualization.

A competency-based curriculum is designed with a view to help learners acquire knowledge, skills, values and outlooks that are likely to provide them with competencies that they can successfully use to serve society. There are differences between competency based curriculum and content based curriculum. Thus, a content-based curriculum encourages rote memorization of factual knowledge. Wangeleja (2010:10) argued that “a knowledge-based curriculum (KBC) focuses on the grasp of knowledge and thus the curriculum is content-driven”. In the same vein, the Tanzania Institute of Education (2004:1) pointed out that “a knowledge-based curriculum emphasizes on theoretical content and is rooted in traditional teaching and learning approaches. While, competency-based curriculum capitalizes on competency-based learning which focuses on understanding the concepts, skills and attitudes which in turn calls for changes in teaching, learning and assessment approaches (Posner, 1995). The purpose of CBC is to promote learners to achieve a presetting ability, each individual learner’s behavior in the learning process is of concern; its evaluation is to emphasize criterion-referenced.

In the case of method teaching and theory of learning CBC was its own foundation. Luambano (2014) argued that constructivist approaches to teaching and learning are similar to the concept of the competency-based curriculum (CBC), which in reality are the same but expressed differently. This idea concurs with that of Kimaro (2011:38) who stated that; CBC practice as opposed to the content based practice is a new curriculum practice that is intended to build knowledge, skills, attitudes and values that the learner can use to solve problems in daily life. It is all about what the learner can do practically but not the quantity of theoretical knowledge that the learners memorize. (Mulenga, 2019). According to my review the practice of CBC is more expensive than the content based one since it demands for specialized teaching and learning resources, equipment and infrastructure; however it will have various advantages to promote quality, relevance and efficiency of educational curriculum of any level. Moreover, it requires competency of curriculum implementers.

Both developed and developing countries have attempted to implement CBC to solve issues of education related with social, economic, cultural, technological, international and national cross-cutting or pressing elements. Some of these countries and corresponding triggering factors were: USA, behavioral objectives movement of the 1950s; United Kingdom, experienced an economic recession which led to rising inflation and increasing unemployment predominantly for young people in the mid-1970s (Wiener, 1981 and Mulenga, 2019). Thus competency-based education was introduced in order to reduce unemployment among the youths and provide them with skills. It can also be noted that education was seen as a tool for economic and global development. In Australia, the CBC was introduced as a Government directive in 1990 (Smith, 1996). It resulted from observed weaknesses in the skills level of the Australian workforce following changes in the economy and the pace of technology. In Germany, the notion of CBE first appeared in the 1970s. It was characterized by the specialization and a higher degree of abstract knowledge and skills (Weigel et al., 2007). This implies that a competency-based curriculum requires the learner to acquire knowledge, personal competence and social competence.

In Africa, many countries were launched to adopt CBC approach as one or reform in the educational process and to make the curriculum relevant for learners and overall communities Curriculum reform is not a new phenomenon in Africa and around the world. For most African countries the process of curriculum review started as soon as nations got political independence from the colonizers. Most African countries revised their curricula in order to Africanize and decolonize the former curricula so as to meet the growing demands of their societies and to promote their local cultures. Furthermore, to achieve sustainable development goals and 21st century skills beginning from lower level like literacy, numeracy and life skills up to highest level of the century skills like creativity, critical thinking, problem solving, learning to learn, ICT skills, communication and collaboration and metacognition looking the models curriculum designed or developed will have a very great values to improve quality and relevance of education.

Thus, many African countries have been reforming their educational curriculum from content based curriculum to CBC since 1990. Some of these countries and rational for reforms were presented as follows:

In Africa, the competency-based curriculum was adopted for the first time in South Africa in 1998, following the acute shortage of professionals such as engineers, technicians and artisans. In South Africa the scholars preferred to use the term outcome-based education (OBE). (Mulenga, 2019). Tanzania introduced the competency-based curriculum in order to respond to the Tanzania Development Vision 2025 and the Education Development Sector Programme (Taasisi ya Elimu, 2013). In Rwanda, the competency-based curriculum (CBC) was launched in

April 2015 to identify best practices that could be replicated in Rwanda to produce effective results in the quality of education offered to the Rwandese (REB, 2015). In Kenya, The Kenyan Institute of Curriculum Development (KICD) adopted a competency-based approach (CBA) in their curriculum reforms based on the findings of needs assessment studies carried out in 2016 (KICD, 2017 and UNESCO, 2016) and KICD conceptualized a competency as the ability to apply learning resources and outcomes adequately in a defined context.

Ethiopia is also one African country, located in eastern Africa. The challenges of curriculum reform of Ethiopia have similarities with most African and developing countries in the world except some national context related factors. In a hidden or informal manner the aims and general objectives of education and training of Ethiopia (TG, 1994) was indicated about CBC but there was no clearly stated curriculum framework based on it to adopt reform. The first time in 2009, the ministry of education declared to adopt CBC in Ethiopian general education (MoE, 2009) and currently based curriculum framework draft of 2020, curriculum materials development and implementation have been conducted in primary schools (MoE, 2020). The rationale of reform is similar with other countries and incorporates diversity issues of Ethiopia and to produce competent learners from each level of education. But the interview response and classroom observation have shown that the implementation of CBC has problems beginning from conceptualization up to actual classroom teaching learning process. The study conducted in Tanzania in the topic “Reflections on the Implementation of Competence Based Curriculum in Tanzanian Secondary Schools” also supports it and presented as:

Major parts of teachers did not have the proper understanding of the objectives of competence based curriculum; the reviewed lesson plans did not reflect the qualities of a competence based lesson plan. Moreover, the involvement of students in classroom activities by the teachers who were observed was, in overall, very low. Lastly, teachers practiced formative students’ assessments in less than 50% of the observed classroom sessions. In view of these findings, it seemed that the implementation of competence based curriculum in the selected schools was ineffective (Komba & Mwandanji 2015: 73).

Finally, the experience of general education curriculum development of Ethiopia and empirical evidence of national study findings was implied that CBC model has not implemented in Ethiopia and there was conceptualization and practice gap in the implementers, some of indicators were issues of learner-centered method of teaching, continuous assessment and professional development of teachers (MoE, 2020, 2018/9, 2016, 2011). The first time in Ethiopia the CBC model was endorsed in the curriculum framework of general education curriculum (KG-12) in 2009 (MoE, 2009) but nationally conducted study revealed that it was not practiced as planned beginning from curricular materials development up to implementers preparation. Secondly, the curriculum framework is currently stated to adopt CBC by improving some problems of transition period, knowledge based curriculum to competency based curriculum to solve current problems related with education and socio-economic, cultural, technological and other aspects.

4.5 Areas of Learning and Subjects
Table 6: Areas of Learning and Subjects

Country	Areas of learning and/or subjects
1 Kenya	Core and optional subjects. Core Subjects English, Kiswahili or Kenyan Sign Language for learners who are deaf, Mathematics, Integrated Science, Health Education, Pre-Technical and Pre-Career Education, Social Studies, Religious Education (learners choose one of the following: Christian Religious Education, Islamic Religious Education, and Hindu Religious Education), Business Studies, Agriculture, Life Skills Education, Sports and Physical Education NB: ICT will be a delivery tool for all learning areas. Optional Subjects Learners are provided with an opportunity to choose a minimum of one and a maximum of two subjects according to personality, abilities, interests and career choices from the list provided. Visual Arts, Performing Arts, Home Science, Computer Science, Foreign Languages (German, French, Chinese, Arabic), Kenyan Sign Language, and Indigenous Languages (page 33)
Maldives	Islam and Spirituality; Language and Communication (both Dhivehi and English); Mathematics, Environment, Science and Technology; Social Sciences; Creative Arts; Entrepreneurship; and Modern Foreign Language(s).
Kosovo	Languages and communication (mother-tongue, English as a first foreign language, other neighbouring languages and other foreign languages); Arts; Mathematics; Natural sciences; Society and environment; Health and well-being; Life and work.

Similarities in the case of core subject's selection and foundational subjects' differences exist in the religious studies and differentiating it. One of the better developed countries in the world is England. The learning area of England has included Core subjects: English, Mathematics and Science; Foundational Subjects art and design, citizenship, computing, design and technology, language, geography, history, music and physical education. Moreover, all schools are also required to teach religious education at all key stages. One of the good practices for me was Kenya sign language selection as an area of learning. It will have a great contribution to make the educational system inclusive.

Ethiopia's curriculum of general education has included many of listed and educational development roadmap of 2018/19 support all except incorporating religious studies in primary and secondary schools as subject and area of learning. According to researchers personal review Christian Religious Education and Islamic Religious Education of Ethiopia for the future selecting core areas of learning for general education which will have merits like to promote good values of societies and promote humanistic perspectives, minimize challenges related with expansion of post-modern ICT and reduce disciplinary issues of learners (Personal suggestions).

Currently, in Ethiopia curriculum reform has been conducted in primary schools based on the education sector development program (ESDP six (MoE, 2021). curriculum framework of 2020 (MoE, 2020) and educational development road map (MoE, 2018/19). It combines some subjects and adds new subjects for middle education, changing the medium of instruction for grade 5-8. The comparison of Ethiopia and other countries' experiences are discussed below.

The experiences of Maldives: Integrated science is a learning area which combines concepts of physics, chemistry, biology and environmental studies. This learning area provides the learner with an opportunity to gauge his or her ability in science in preparation for studying the same at higher levels and even choosing it as a career. In Ethiopia post-1994 education and training policy up to 2020 curriculum reform in grade 7 and 8 these subjects were taught separately but currently by combining names as General Science and taught as a single subject. Secondly, the Social Sciences learning area is drawn from related but varied disciplines such as anthropology, economics, geography, history, law, philosophy, political science, psychology and sociology, as well as some elements of natural science. It explores the past, present and the future of Maldives and the interconnections with the wider world.

Experience from Indian education policy indicated the following core principles in the case of selecting learning areas:

- *Flexibility, so that learners have the ability to choose their learning trajectories according to their talents and interests;*
- *No hard separations between arts and sciences, between curricular and extracurricular activities, between vocational and academic streams.*
- *Multidisciplinary and a holistic education across the sciences, social sciences, arts, humanities, and sports for a multidisciplinary world in order to ensure the unity and integrity of all knowledge;*
- *Emphasis on conceptual understanding rather than rote learning and learning-for exams;*
- *promoting multilingualism and the power of language in teaching and learning;*
- *focus on regular formative assessment for learning rather than the summative assessment that encourages today's 'coaching culture'.*

Important lessons from Indian educational policy for any country curriculum policy development and implementation will be flexibility of educational curriculum for learners to recognize their interest, strengthening multidisciplinary approach. Moreover, it emphasizes more on formative assessment which will be the basis for CBC implementation and benefits of co-curricular and extra-curricular activities for school curriculum relevance and quality improvement. These all were incorporated in the current Ethiopian curriculum framework but my doubt will be how much and how it will be practiced because it needs competent teachers who adapt and/or contextualize at school and classroom level. It needs to make teachers as curriculum developers at a lower level based on national curricula.

The experience of curriculum development in Finland, England and other developed countries provides freedom to develop curriculum or instructional materials at different levels. In England, the 'school curriculum' comprises the whole curriculum as experienced by the pupils in each school. The school curriculum is the sum of the national, basic and local curricula. it was stated as follows:

The local curriculum should therefore complement the specificity of the mandatory National and Basic Curricula, giving opportunities for teachers, schools and communities to make autonomous decisions. This is intended to leave substantial scope for school leaders and classroom teachers to exercise professional judgment and creativity in deciding how to contextualize, extend, deepen and embed the curriculum and learning experience. England

Curriculum and textbook of general education, especially primary and secondary schools were different between countries. It may be centralized, sub-centralized and decentralized. The provision of curricular materials comparisons of selected countries (China, Mexico, The Caribbean and Nigeria) was reviewed.

Channel of textbook development and delivery in China Decentralized. The center only coordinates, approves and makes policies. It operates a three-tier system, where the state, region and provinces make inputs in curriculum implementation and textbook development, thereby ensuring it satisfies the needs of even the most rural areas. Mexico centralized, the central government provides the curriculum, develops most of the textbooks and distributes them to all the states in Mexico. Private publishers, teachers, educators have little or no input in the development of textbooks/curriculum and distribution. Caribbean centralized, the government provides the curriculum, develops most of the textbooks and distributes them to all the states in member countries. Nigeria adopted sub-central ways. The government provides the curriculum, approves the publishing houses to be used, and the textbooks distributed to local schools within each region. (Adebayo Babafemi, 2018).

4.6. Pedagogy

All countries reviewed in this were suggested student-centered pedagogy even if there may be variation in the implementation period due to various theory and philosophy of education a country adopted. In the case of Ethiopia, a student-centered or active learning method was stated to employ it in all levels of education in 1994 education and training policy (TGE, 1994). But each phase of ESDP (education sector development program of Ethiopia) reviewed research conducted by scholars implied that it was not implemented according to policy, program and reforms designed each period. Approaches to Teaching and Learning recommended in Samoa:

relate new ideas to previous knowledge and experience, engage in debate and reflection, investigate, problem solve, and apply knowledge to generate and create meaning. These are indicators of learner-centered pedagogy.

International experience has indicated that the pedagogical strategies and instructional materials prevalent in many schools today rely too heavily on a kind of teaching and learning that implies and conveys a sense of certainty. The study of Smart, et al. (2020) revealed that the strategies and materials fail to help teachers integrate dispositions such as flexibility, resilience and self-direction alongside academic learning into their daily practice. They proposed that The essential role of teachers' is pedagogy in incorporating these dispositions and values. In order to achieve this, they propose the concept of 'strong textbook content', in which academic concepts are complemented by examples of their relevance to students' lives, with particular emphasis on examples that support positive student agency. Finally the study proposes the idea of 'strong pedagogy', whereby pedagogical support is embedded into textbooks and other education materials.

4.7 Medium/Media of Instruction and Language Policy of Education

In different countries including Ethiopia, the medium of instruction and language policy of education has influenced the development and implementation curriculum, especially pre-primary, primary and middle education like lower secondary education and finally its impact continues upto world of work and further education. Moreover, the language background of learners has also influenced secondary and higher education learning outcomes of students and teachers instructional activities. In my view the cause for language related issues were the ways each country stated the management of bi-lingual and multilingual educational curriculum development and implementation.

Most of the nation states use their official or national language as medium of instruction. In bilingual and multilingual societies, different models and strategies are followed. Few practices are given below:

If the national language or mother tongue is the medium of instruction and there is only one language of monolingual society, there is nothing to discuss about challenges concerning medium of instruction. For example England, USA, New Zealand and Australia use English as a medium of instruction; Countries like Turkey, Indonesia, Malaysia, Iran, Sri Lanka, Thailand, Japan and most of the Arab countries use their national language as a medium of instruction for their own citizens. One of the problems in these countries will be about education of migrants because there were/are/will be young and children migrating from one country to other for different purposes who have no hosting country language background.

There are three different ways of using the medium of instruction stated in the Pakistan Curriculum framework. These are foreign language as medium of instruction (colonial legacy), bilingual education (two language policy, it may be local or national and foreign languages using side by side), and transitional bilingual education (at early grade or pre-primary and primary using local and national language and after certain years upper primary and secondary schools using national/official and foreign language as medium of instruction). The Ethiopia educational system has medium instruction and is categorized under transitional bilingualism.

Some countries including Ethiopia use the model of Transitional Bilingual Education. This means, education in early grades is offered in the mother tongue (or first language, L 1) and side by side, Second Language (National Language or a foreign language, L 2) is also taught as a subject. Gradually, after Grade 3 or Grade 5, the medium of instruction is shifted to the national language or L 2. This model is followed in some parts of China, Philippines, Scotland, Northern Ireland, South Africa, Tanzania, and Ethiopia. This model is also followed for education of children from migrant families in the USA, and in schools for aboriginals in New Zealand.

Review has indicated that all countries attempted to make pre-primary and basic or primary education in mother tongue or first language. Some good experiences were presented in the following ways.

Experiences from Kosovo Curriculum Framework

The mother-tongue is to be taught across all curriculum key stages from pre-primary to grade 12. The English language starts from the first stage and continues to the last grade of upper secondary education. During the first curriculum key stage, learners will acquire English through play, drawing and song, and continue in later stages with reading and writing. In the last two key stages of secondary education, English will be taught, where feasible, as an applied subject within other learning areas, especially in vocational education schools. The Albanian language for students of the non-Albanian community is to be taught from the second key stage of the curriculum. A second foreign language starts in the third key stage of the curriculum (grade 6).

A second language may be: one of the neighboring languages (Serbian, Bosnian and Turkish), which students can choose to learn; and/or German, French and Italian, amongst others. Other languages start in the fifth curriculum key stage, which is in upper-secondary education (gymnasias and vocational schools). This group of languages includes: German, French, Italian, Spanish and/or classic languages (Latin, Ancient Greek or some other language). Some exceptional cases of medium of instruction in India and Samoa educational curriculum development and implementation were observed in the case of language policy, how they made bi-lingual and multilingual.

Educational policy of India: (Multilingualism and the power of language)

“Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language. Thereafter, the home/local language shall continue to be taught as a language wherever possible. This will be followed by both public and private schools”. This has similarity with Ethiopian post-1994 general curriculum language policy of instruction because different regions have been tried to use grade 1 to grade 4 (Southern Ethiopia), grade 1-6 (Addis Ababa city administration, capital of Ethiopia) and grade 1-8 (big regions like Oromya, Amhara and Tigray) have been used first languages as medium of instruction. Thus, the standard age of children to join grade 1-8 is 7 -14 years in Ethiopia.

Indonesia language policy of instruction/education recommends that teachers will be encouraged to use a bilingual approach, including bilingual teaching-learning materials, with those students whose home language may be different from the medium of instruction. All languages will be taught with high quality to all students; a language does not need to be the medium of instruction for it to be taught and learned well. In the case of Ethiopia, classroom teachers use a bilingual approach but there is no approved guide line to employ it. Sometimes it may be criticized as one hindering factor of students and teachers language ability rather than empowering how to use bilingual approach to improve students' learning outcome.

Ethiopia has suggested a trilingual approach in current curriculum reform of general education. Thus, the three-language formula will continue to be implemented while keeping in mind the Constitutional provisions, aspirations of the people, regions, and the union, and the need to promote multilingualism as well as promote national unity. However, there will be a greater flexibility in the three-language formula, and no language will be imposed on any State. The three languages learned by children will be the choices of States, regions, and of course the students themselves, so long as at least two of the three languages are native to India.” Educational development road map of Ethiopia (MoE, 2018/19) and general education curriculum framework has suggested similar points concerning language policy of education.

It was stated languages intended to deliver were mother tongue or first language, one Ethiopian federal working language, and one foreign language at lower grade level, one or two languages in upper primary and secondary all three languages, and English is medium of instruction in secondary and higher education. But, the exception and similarity with Indian is the choice of one foreign language and second federal official working language according to the interest of learners, regions and family. This will make the number of languages four up to five but the mandatory language will be three and two are optional in Ethiopia. Furthermore, Samoa bilingual policy or additive bilingualism will have advantages for Ethiopian primary and middle education instructional process and learning outcome effectiveness. It will fill the gaps of monolingual approaches of selected academic learning areas in the case of primary and middle education.

Language and Bilingualism (Samoa)

The vision for Samoa’s education system is bilingualism. It seeks to ensure additive bilingualism, that is, the continuing development and maintenance of Samoan language whilst acquiring English with both languages developing high levels of proficiency. Guidelines for the Medium of Instruction Samoan and English will be used as the Medium of Instruction in an arrangement that allows language and thinking skills to be developed in both languages while ensuring Samoan language maintenance.

Table 7: Assessment and Teaching Ways in Bilingualism in the case of Samoa

For Year 1,	An integrated approach to teaching is encouraged. Units of work should be developed in both Samoan and English with 90% of units prepared, taught and assessed in Samoan and 10% of units prepared, taught and assessed in English.
For year 2	80% of units should be prepared, taught and assessed in Samoan and 20% of units prepared, taught and assessed in English.
For year 3	70% of units should be prepared, taught and assessed in Samoan and 30% of units prepared, taught and assessed in English.
Years 4 and 5	60% of all units should be prepared, taught and assessed in Samoan with 40% prepared, taught and assessed in English.
Year 6	50% of all units should be prepared, taught and assessed in Samoan with 50% prepared, taught and assessed in English.
Year 7 and 8	40% of units within each learning area should be prepared, taught and assessed in Samoan with 60 % prepared, taught and assessed in English.
Years 9-13	English will be used for all learning areas and subjects except Samoan

Here the term year presented equivalent with grade level in formal school the age for year 1 student is 6 or 7. When we compare bilingualism of Samoa with Ethiopia there is no similarity in the case currently reviewed educational and curriculum policy explicitly. But in some private primary schools there are trends of using two languages (Amharic and English) as media of instruction. In hidden ways these schools use subjects like mathematics and environmental science by saying and preparing some sort of materials for mathematics in English and mathematics in Amharic and so on even if it was not recognized by concerned bodies or the education sector in Ethiopia. The assessment and duration of periods for each medium of instruction was decided by schools.

4.8 Teacher’s Education and Professional Development

One of the elements of the curriculum development framework is teacher professional development. To improve the relevance and quality curricula pre-service, in-service and CPD(continuous professional development) will have its own merits. It is better when a teacher education or professional development program is offered in multiple modes, including in the form of local, regional, state, national, and international workshops as well as online teacher development modules. Stages (especially online platforms) will be developed so that teachers may share ideas and best perform.. Some international experiences were discussed here.

India: Teachers will be given continuous opportunities for self-improvement and to learn the latest innovations and advances in their professions. Each teacher will be expected to participate in at least 50 hours of CPD opportunities every year for their own professional development, driven by their own interests. CPD opportunities will, in particular, systematically cover the latest pedagogies regarding foundational literacy and numeracy, formative and adaptive assessment of learning outcomes, competency-based learning, and related pedagogies, such as experiential learning, arts-integrated, sports-integrated, and storytelling-based approaches, etc.

Kenya: School based capacity building will adopt mixed method approaches such as peer training, mentorship and coaching. These could be organized centrally, through county, regional and school initiatives; use of social media in collaborative learning could be used to exchange and share information and experiences on the reformed curriculum; use of mass media including TV, online and radio programmes; and a digital literacy platform will support teachers in uploading their material.

Maldives: Offer continuous school based professional development that addresses the schools’ priorities and individual needs of the teachers; create sufficient time to discuss and reflect on teaching and review teacher strengths and areas of improvement; provide opportunities to gain experience through exchange programmes.;

foster a positive culture of sharing by using various mediums to exchange information and recent teaching learning trends and use expertise within and outside the school.

Pakistan: Continuous professional development in its broader sense may include the development of competencies and skills of the teachers as to meet the new trends and innovations in teacher education. There is always a need for professional development of teachers as the curricula are changed whenever new concepts (content) are added and innovations are brought in teacher education. Teachers need to be re-orientated in content knowledge and pedagogy periodically.

To improve the learning outcome of students in the school curriculum, ongoing professional development plays a very great role. Enabling teachers to continue to grow, learn and be excited about their work depends on both ongoing high-quality learning opportunities and career opportunities that enable them to share their expertise in a variety of ways (Darling-Hammond, 2017). Around the world, job- surrounded forms of professional learning are taking greater root, often organized around teachers' work with curriculum development through cooperative planning, lesson study and action research of various kinds. Also increasing in many countries are opportunities for teachers to share their capability with one another to make professional development effective. There are seven widely shared features of effective professional development presented in study. These are content focused, incorporates active learning, supports collaboration, uses models of effective practice, provides coaching and expert support, offers feedback and reflection, and is of sustained duration (Darling-Hammond, *et al.*, 2017).

4.9 Assessment and Evaluation of Curriculum Components

Assessment and evaluation of educational curriculum are based on teaching and learning, teacher performance and curriculum itself. Most of the time educators and other stakeholders have focused on students' learning. In a similar manner this study focuses on how to assess and evaluate students' learning and learning outcome and some experience of different countries were presented based on it.

Sudan: After 8 years of education, learners who complete and attain basic examination certificate may precede academic or technical secondary schools. It is an indicator of assessment of learning or emphasis of summative assessment.

Samoa: The purposes of classroom assessment are to identify what individual students and groups of students know and what they still need to know to achieve the stated learning outcomes; to provide the basis for future teaching; plans; to inform teachers of areas where additional support is needed; to provide a basis for evaluating program effectiveness, to develop a sense of partnership between parents, teachers and students.; and to enable students to be selected to undertake particular programs. This shows assessment is more focused on assessment for learning.

Outcome based or competency based curriculum development and implementation was recommended in the Samoa curriculum framework. Outcome based curriculum focuses on the knowledge and skills students' exhibit as a result of schooling. This contrasts with a focus on the inputs or intentions of the curriculum. Outcomes are measurable and assessable and outline defined skills, behaviors and values associated with each learning area and level.

Kosovo: The student assessment system included internal assessment and external assessment. Standardized State/national assessments are organized upon completion of grades 5, 9 and 12. State/national assessments are focused on measuring the level of achievement in mastering the key competencies. In the case of Ethiopia national assessment incorporated grade 6, 8 and 12 before 1994 education policy and post 1994 education policy national assessment organized upon completion of grade 8, 10 and 12, but currently proposed to make it grade 6, 8 and 12.

Kenya: The Summative Evaluation of the Curriculum' (KIE, 2009), indicated that the curriculum content and its implementation was academic and examination oriented. In addition to curriculum overload, most schools were not adequately provided with equipped workshops to facilitate the learning of practical skills and teachers were not sufficiently trained. This shows Kenya used assessment and evaluation to change the model of curriculum from content based to competency based curriculum. Competency based assessment can be described as determining the capability to apply a set of related knowledge, skills and abilities required to successfully perform critical work functions or tasks in a defined setting. The curriculum framework of Kenya has shown that

there are both formative assessment (assessment for learning) summative assessment (assessment of learning) mechanisms.

Maldives: Assessment in schools can be classified into diagnostic, formative and summative strands.

Pakistan: formative assessment, summative assessment and large-scale assessment. Pakistan is scheduled to participate in the next Trends in International Mathematics and Science Study (TIMSS) to be conducted in 2019.

All countries' educational systems recommend using both formative and summative assessment and the difference is engagement of international assessment. In similar ways in Ethiopia these assessment implementations have been discussed extensively however there are practical limitations in the case of implementers. Like Pakistan Ethiopia has also planned to engage in the international assessment of students and disclosed it in the educational development map in 2018/19. It will provide good feedback on how far the implementation curriculum in the country prepares students for the world of work and competence at international level for the level required, however actual practice in the development and implementation of curriculum differ in the general education.

4.10 Inclusiveness of Educational Curriculum/Curricula

Countries here included in the studies and other countries in the world suggested making the educational system inclusive for all with respect to differences in gender, disability, learning style, socio-economic class, ethnicity, language and other forms of diversity. **Some countries' experiences are discussed below.**

Samoa: students with special needs (Developing an Inclusive education approach for all)

Kenya: functional assessment determines the placement of the child and the kind of intervention that will be suitable for the child. The child may be placed in a special school, special unit, regular school or home based programme.

Maldives: allow flexibility in timetabling: some lessons can be lengthier than others depending on the objectives of the lesson. Adapt the curriculum to meet students' needs.

India: Indian Sign Language (ISL) will be standardized across the country and National and State curriculum materials developed, for use by students with hearing impairment. Local sign languages will be respected and taught as well, where possible and relevant.

Ethiopia: the presence of special needs/ inclusive education strategy implementation guideline and guideline for curriculum differentiation and individual educational programme. This will support students with some forms of diversity and to think about other strategies (MoE, 2012). It is also treated as one of cross cutting issues/areas in Ethiopia's education sector development program for the last two decades. Theoretically Ethiopian general education program implementation has also discussed interrelated elements like equity and quality inclusive education for all, curriculum adaptation, culturally responsive pedagogy, gender sensitive pedagogy, learner-centered pedagogy, etc.

5 Conclusions and Implications

Educational system/structure and curriculum policy development of general education of developed countries and developing countries like Ethiopia have similarities and differences. Structure of pre-primary, primary and secondary schools have around similar age levels except beginning Kindergarten at age of 3-5/6 and joining primary education at age 6 or 7; classifying primary/basic and secondary education in different stages. In the case of curriculum framework development most of the countries currently adopted the guide line developed by UNESCO (2017), a prototype of a national curriculum framework. It includes necessary things like vision, mission, values, principles, aims and goals of curriculum, areas of learning, teaching methodologies and strategies, assessment and evaluation and other important things like philosophy of education and curriculum framework accepted.

Some variations observed in Ethiopia during curriculum implementation and other countries were medium of instruction, practice of reforms like learner-centered pedagogy, assessment for learning (formative assessment), and participation in the international assessment. There was variation in using appropriate models of curriculum which provide solutions for current and future problems of a country based on 21st century skills and achievement of sustainable development goals. One of the better models proposed in different studies to

implement the curriculum is the CBC (competency based curriculum) model but it has not been practiced in the Ethiopian educational system appropriately at all levels.

Study of this article was implied in the following area of general education to revisit:

There are suggestions captured from a very big country like China and a small country like Samoa curriculum development policy to improve curriculum development and implementation initiatives in Ethiopian primary and secondary schools. In the case of international assessment and quality of educational improvement, high performing countries like Finland and Singapore experiences discussed are important for Ethiopian students to participate in the international assessment.

- Investigating issues related with the medium of instruction and language policy of Ethiopia.
- Searching the ways how to make teachers professional development program relevant to implement CBC model
- checking continuously the implementation of curriculum reforms and providing feedback to show progress of educational process
- scaling up good practice of Ethiopia and other countries educational system by contextualizing and/or adapting

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