Necessity for up-scaling resource mobilisation For implementation of competency-based Curriculum at basics education cycle
Ibuathu C. Njati¹ and Christabel Wegoki Ireri¹

¹Meru University of Science and Technology, Meru, Kenya

School resources comprise necessary materials, both financial and human. A growth towards evidence-based allocation and utilization of school resources is affected by inadequate capacity of the school managers, ministry of education, parents and non-governmental organizations. Inadequate teaching and learning resources limit individual schools' strength to make judicial decisions on equitable trade-offs in education resource demand, supply and consumption. This work sought to identify the locally available resources for utility in competency-based curriculum implementation, improve the available resources for enhancing teaching and learning, and analyze factors militating against effective mobilization and utilization of resources at the basic education level. Online surveys were used in collecting secondary data. Journals, internet, textbooks and research reports were sampled for data gathering through a stratified sampling technique. The findings showed that the rural-urban migration factors significantly affect trained teachers from arid areas by moving away from their local homes to towns in search of jobs. When learners fail to interact adequately with qualified teachers, the consequences are dire, resulting in learners' poor acquisition of competencies. It was ascertained that more than 70% of the teachers teaching at Kakuma Refugee Camp were not sensitive to learners' plights. This was due to their weak and inadequate education and training background coupled with poor teaching and learning resources. 60% of the tutors at Kakuma Refugee Camp were untrained in pedagogical and andragogical skills necessary for giving instructions in a competency-based curriculum. It was established that the cost of needed materials and training for improving CBC implementation was expensive. Therefore, action research could explore avenues for economies of scale by sharing materials and coordinating purchases between and among neighborhood schools. This is because the critical mass of activities under CBC such as arts, music and sports all create new opportunities for supply chains that present avenues for partnering with organizations that support basic education activities that has remained unexploited. In conclusion, the national and county government's department of pre-primary and basic education level should generate guidance on the use of alternative and low-cost materials for teaching to alleviate the persistent shortages of teaching resources.

KEY WORDS
Resources
Mobilization utilization;
competency-based-curriculum
enhancing teaching and learning

ABSTRACT

https://doi.org/10.58506/ajstss.v1i2.10

https://journals.must.ac.ke © 2022 The Authors. Published by Meru University of Science and Technology
This article is published on an open access license as under the CC BY SA 4.0 license
Introduction

School resources are the relevant goods that are both tangible and intangible materials in our surroundings that assist us in fulfilling our daily tasks at the school functional level. Therefore, school resources comprise necessary materials (such as text and exercise books, teaching aids, computers, internet materials, and building facilities), both financial and human resources. However, a growth towards evidence-based allocation and utilization of school resources is affected by inadequate capacity of the school managers and the funding agencies like the ministry of education, parents and non-governmental organizations (UNICEF 2021). This limits individual schools' strength to make judicial decisions on equitable trade-offs in education resource demand, supply and consumption while satisfying the learners, teachers and management requirements for teaching and learning (World Bank, 2011a).

Several research studies have documented critical constraints facing the acquisition of relevant resources for school uses. Consequently, this has negatively impacted the implementation of a competency-based curriculum at the basic education level. According to Auko (2021), the significant functions of education in African nations after achieving independence were to offer adequate learning and skills to their people, impart the right competencies to take up leadership roles, and fill most of the jobs in different sectors of the economy. But this has been realized with some gaps in training due to inadequacy of teaching and learning resources. According to Kisirkoi and Mse (2016), the fundamental aim of primary pedagogy in Kenya is to allow pupils to obtain creativity, literacy, communication skills, and numeracy. However, various studies and surveys conducted in Kenya and Africa have highlighted many grey areas of inadequate pedagogy. Most primary school pupils complete the primary schooling cycle without getting the requisite general literacy skills and competencies. Such competencies are valuable focal points for growing a knowledge-based economy in the nation. The primary education sector has been experiencing financing gaps and an inadequate number of trained teachers, which are likely to affect the delivery of the expected learning outputs. To address these gaps, the sector will require mobilizing resources through public-private partnerships within their local setup; and engaging development partners within the county to bridge the resource gaps identified.

Each country has been expected by United Nations (UN) to continually strive to implement and achieve Sustainable Development Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030. This is a call that requires each government to rally international, regional and local partners to mobilize the teaching and learning resources to attain this goal. The factors that explain the poor quality of learning are numerous and can be found both on the students' side (in their family and community environment) and in the educational system (structural and pedagogical practices, lack of human personnel and material resources, weak administrative and pedagogical supervision among others (UNICEF 2021)

On the other hand, the COVID-19 pandemic has greatly affected the academic education programs and the school calendar. The pandemic has strained the existing resources that enable learning institutions to comply with the health protocols in terms of social distancing, provision of adequate water points and other infrastructures. This further generated new twists during the Implementation of a competency-based curriculum. The survey recommends that teachers quickly embrace the recent changes to accommodate and allow teaching to be carried out even during hard times. However, the limiting factor is the availability of resources (Uwezo 2020 & Samuel 2021).

Based on the research done by various scholars, it has been challenging to achieve this objective due to inadequate school resources. This includes poor and not enough classrooms, inadequate textbooks, chalks and blackboards, teacher helping materials, and other teaching materials. Inadequate teachers: Teachers lack competency-based pedagogy, guidance and counselling competencies; administrators' inadequacy in managerial duties, planning, financial record keeping, and information communication skills. Therefore, it is challenging to implement and attain the educational desired outcomes to a satisfactory level, especially with a competency-based curriculum.

The policy issues on capital development expenditure among primary education institutions in Kenya are born by the parents, while the ministry of education finances repair and maintenance. Furthermore, the National Government Constituency Development Fund (NG-CDF) is expected to put up building in schools as some of the projects to develop the constituency (KNBS, 2022).

Specific Objectives

i. To identify the available resources for utility in competency-based curriculum implementation at the basic education level.
ii. To examine ways of improving the available resources for enhancing teaching and learning.
iii. Assess constraints militating against effective mobilization and utilization of resources at the basic education level.

**Literature Review**

It is noteworthy that the AU (2021) reiterated that African ministers of education recognized that education in Africa required great transformation to respond to the corona virus disease COVID-19 pandemic and any other emerging issues. This could be achieved firstly by applying a number of mitigations in the areas such as digital connectivity and online and offline learning. Secondly, by retooling teachers as facilitators and motivators of teaching and learning in schools with the right competencies to deliver the curriculum expected outcomes. Thirdly, the infusing of skills-focused learning, known as the "DOTSS (Digital connectivity; Online and offline learning; Teachers as facilitators and motivators of learning; Safety online and in schools and skills focused learning) framework in line with the digital transformation strategy of the African Union has revolutionized teaching and learning during the 21st century. Implementing and achieving these steps would mark a significant milestone in resource mobilization and utilization in the basic education cycle.

Observations by Uwezo (2020) supports Mwendwa (2015) and Okoye (2013) claim that the increasing need for the primary education system to be responsive to the demands for improved quality and more effective education firmly stems from historically unequal rapid political, socio-economic and digital global changes. Inadequate knowledge of resource mobilization and training among teachers, parents and school boards of management (BOM) is a threat to the managerial and leadership of basic education institutions. Most BOMs and school heads have relied heavily on main stream means and non alternative means of resource enlistment, such as school bursars, storekeepers, account clerks and few parents (ibid).

The data per country on the educational levels of public expenditure points out that only a few African governments prioritize allocating resources to early childhood education (ECE). Out of the available 17 countries, most countries give less than 5% of their public expenditure to early childhood education except Comoros and Seychelles, with 7% and 10%, respectively. Moreover, in Togo, Namibia, Cape Verde, Democratic Republic of Congo, Comoros, South Sudan, Lesotho and Côte d’Ivoire, among other African countries, less than 20% of expenditure in public educational institutions goes to resource mobilization, with the rest earmarked for staff remuneration (Amunga, 2019; UNESCO Institute for Statistics, 2021 and UNICEF, 2021).

In countries such as Benin, Senegal, Chad, Niger, Mali and Guinea, where around 70% of primary-school-age children are enrolled in schools, the financing of educational infrastructure (and school buildings and classrooms, offices, laboratories, libraries) receives less than 10% of public expenditure on education. Similarly, Côte d’Ivoire and Madagascar have lately attained slightly less than 70% enrollment in lower secondary schools, with barely over 30% of children out of lower secondary schools, allocating less than a tenth of their secondary education expenses to capital expenditure (Global Education Monitoring Report, 2016, New York, UN; UNICEF, 2021 and UNESCO, 2021).

Moreover, these studies document that the average repetition rate in the African continent is 10% at the primary cycle and 13% at the secondary school level. Central African countries have the highest wastage rates, averaging slightly below 20% at the primary and secondary levels (Owala, 2021). The causes of this wastage are the high repetition rates and high dropout rates, contributed mainly by the reallocation of insufficient financial resources to schools. The unenthusiastic effect of repetition on the education system’s effectiveness is compromised as it melts to extra expenses for repeating students and teacher absenteeism (Global Education Monitoring Report, 2016 and The Education Commission, 2020).

Finally, these studies pose challenging questions facing basic education in Africa in the context of efficient resource mobilization among interested parties and their effective utilization by school users. Addressing these challenges on time would open the education system for the children to learn and build the right competencies necessary to enter the job market at the appropriate time.

**Theoretical underpinning**

The study works are guided by an asset-based approach and resource mobilization theory. Resources mobilization theory (Edwards & McCarthy, 2004 and Themba, 2018) posits that the success of social movements and organizations such as schools relied on resources like time, money and skills and the capability to utilize these. Resource mobilization theory classifies resources into five categories, which are material, human, social-organizational, cultural and moral resources (Tarrow, 1989; Kane & Edwards, 2014). While Kane and Edwards (2014) offer a detailed outline of resources that school stakeholders and education social movements (SMOs) can utilize to assist schools within rural contexts, the community capitals
framework provided by Emery and Flora (2006) points us to further resources that can be mobilized. Myende (2014) argues that there are similarities between the community capital framework and Mourad and Ways’ (1998) classification of assets. Myende (2014) further maintains that the community capital framework (CCF) recognizes each community capital and further reveals which resources are available under each category of community capital.

**Methodology**

This study employed an online survey methodology to gather shared experiences on the mobilization of resources to enhance teaching and learning at the basic education cycle. The study heavily relied on secondary data sources such as relevant document analysis and documented observations to meet its target objectives. Secondary data sources were obtained from journals, the internet, textbooks, research reports, the ministry of education, and international organizations in the UN and AU. The target sample was mainly the basic education cycle (preprimary, primary and secondary schools) interested parties and the resource users, primarily the parents, teachers and the learners specifically in Isiolo Bula Pesa, Kakuma Refugee Camp in Turkana and Marsabit in northern Kenya. This is because the arid areas of northern Kenya have been experienced marginalization in terms of offering education due to poor availability of both human and physical resources since Kenya attained independence in 1963 (Owala, 2021 and Onyango, 2020).

**Findings and Discussions**

The paper critically combed through various secondary data sources that have discussed matters of school resources regionally, locally and internationally. Based on this background, this paper stimulates thoughtful discussions on the following themes: identifying locally available resources in rural schools, examining ways of improving the available resources for enhancing teaching and learning, and reassessing factors militating against effective mobilization and utilization of resources at the primary education level.

*Locally available resources in rural schools*

The teachers’ human resource is critical in teaching and learning at basic education institutions. The trained and competent teacher is the pillar and driver of competency-based training. A teacher interprets the curriculum pathways and puts the teaching and learning into the right perspectives. This leads to conducting both theory and practice to the learners appropriately. For example, the adequacy of trained teachers in remote and arid areas of Kenya has never been enough due to a number of factors. The pie charts in fig. 1 show the prevalence of inadequacy among the grade 4 learners in arid areas of Kenya regarding numeracy and literacy competencies.

It’s observable that 35% of the learners cannot translate a mathematical statement into figures with correct mathematical signs such as addition, deduction, bracket division, etc. In comparison, 24% cannot interpret common everyday units of measurements such as days, hours in a day, and weeks in a month, currency shilling. Equally, in performing these mathematics operations, the learners exhibited difficulties in pronouncing correctly the words and reading fluently. This data was supported by the World Bank’s (2018) views that learners who perform poorly at the early stages of learning due to inadequate guidance in learning and teaching are likely to drop out of school and later be engulfed with poor decision-making.
skills within their working environment. The inadequate number of trained teachers in arid schools stems from long-term characteristics of trained teachers fresh from college moving to environmentally and socially stable and safe schools in affluent areas in towns and potential agricultural zones. However, the Kenya government has improved teachers' pedagogical competencies since 2018. A good number of preprimary schools enjoyed a significant percentage of trained teachers with a smaller untrained proportion of 8.5%. When learners fail to interact adequately with trained teachers, the consequences are dire, resulting in poor implementation of the curriculum. They yield minimal acquisition of competencies by learners as required by the world of work.

The government has revised the textbook policy and renegotiated the supply terms for textbooks for primary and secondary schools. This move saw the government reach all schools with requisite textbooks towards achieving a 1:1 pupils/student textbook ratio. However, one teacher lamented that: some schools received a double or triple portion of textbooks in the same disciplines. These excessive supplies of books lie idle in schools indicating a huge unaccounted wastage of resources.

**Figure 2: Teachers challenges in teaching CBC**

They stated their inadequacies and competencies as shown in figure 2.

The study established that from fig 2, approximately a tenth of the primary school teachers implementing the CBC curriculum could not understand the principles of continuous assessment and found difficulties in using new CBC teaching styles to a learner learning style. Similarly, around 12% of the teachers' portrayed a weak understanding of CBC terminologies, which are the basic tenets of curriculum implementation at any stage. For example, some teachers constantly confuse the term design that is meant for the syllabus under CBC for teaching methodology.

School pupils are essential resource for learning to take place. School going age learner resources aged 17 years and below are from low-income families. This translates slightly less than 10 million children. Furthermore, the ratio of rich to poor children in primary and secondary schools aged between 6 to 13 years and 14 to 17 years is approximately 9 to 11. In reality, the ratio of poor rural primary school-going children to urban poor primary school-going children is approximately 7:2. Therefore, the wastage rate in primary schools stood at 15.6%, while that at secondary schools was 41.1% in arid areas. This presented a massive loss of resources invested in learners who left secondary school before completing the cycle. This wastage could partly be attributed to violence and damage of school buildings due to the burning down of school property, radicalism, drug abuse by students, cattle rustling, and bandit activities, especially in Baringo and West Pokot Counties, among others. These opinions were supported by KNBS (2021). Therefore, the likelihood of retaining these children to complete the primary cycle is low due to the hardships they experience during the learning period.

**Measures to ensure all teachers are involved in CBC implementation process**

An online questionnaire to a sample of 182 teachers in primary schools in three counties of Isiolo and Marsabit established that majority of the teachers (more than 60%) were not adequately prepared for CBC implementation. They lamented they were rushed through online retraining programs for short hours in less than a week. They lamented they never experienced hands-on training, which is the key to developing CBC competencies.
Such difficulties include the inadequate number of teaching staff, food, clothing/school uniform and health issues. Besides, the pupil resource is significant in financing and marshalling related resources from the Ministry of Education, especially financing of free basic education.

In support of these observations, Samuel (2021) established that more than two-thirds of the teachers teaching at Kakuma Refugee Camp were not sensitive to learners’ plights. 60% of the teaching forces at Kakuma Refugee Camp are untrained in pedagogical and andragogical skills necessary for giving instructions in a competency-based curriculum. The stakeholders pointed out poor teachers' perceptions of CBC in Dadaab and Kakuma camps. This was characteristic analogous to the rest of the facilitators in Kenya with an equal passion for acceptance and denial of the success of a competency-based curriculum.

**Clean and safe water resource**

Sustainable Development Goal (SDG) 6; specifically, clause 4 avers: Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity (UN, 2019). Clean, safe and adequate water has a link to the health status of the population, and more so in schools. If the water is contaminated, it exposes the school children to a high risk of disease attacks which undermines the realization of the health goal. However, schools in arid areas experience inadequate water recourses. Learners in arid regions of northern Kenya walk for long distances in search of water during the dry spell, safe for the wet seasons. In the arid areas, the availability and supply of water remained scanty and with poor storage capacity. In almost 7 out of 10 schools the issue of safe and clean drinking water in schools in remains expensive and unresolved. In supporting these findings, the Ministry of Education (2018) documented that the hygiene and adequacy of safe and clean drinking water and sanitation impact the development of children and their learning activities. The installation of water purification systems in schools to deliver clean and safe drinking water is indeed expensive due to meager resources.

**Internet resources for schools**

The implementation of the digital literacy program: The programme embraces ICT integration in primary education. The main aim is to make teaching and learning processes more effective for teachers and pupils at basic education level by providing an alternative platform for accessing curriculum support materials that otherwise would only be available in print form. Under the program, the government has improved ICT infrastructure in primary and secondary schools; developed digital content aligned to the curriculum; trained teachers to deliver lessons using digital devices; and around 12% of the schools are provided with active digital devices to learners and students, including some for the administration of schools. However, a observation from most schools revealed that over 70% of the tablets and computers are nonoperational. Secondly, one or none of the teachers in a school knew how to operate a computer or have forgotten how it was done.

**Implementation of the information literacy**

Data from Table 1 shows that almost half of primary school teachers in arid areas are inadequate in information literacy. This gap should be filled through

<table>
<thead>
<tr>
<th>Primary Teachers Competency</th>
<th>Non</th>
<th>A little</th>
<th>Familiar</th>
<th>Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversant with MS word</td>
<td>10%</td>
<td>15%</td>
<td>30%</td>
<td>45%</td>
</tr>
<tr>
<td>Use of emails in communicating</td>
<td>2%</td>
<td>10%</td>
<td>28%</td>
<td>60%</td>
</tr>
<tr>
<td>create a file on a computer</td>
<td>15%</td>
<td>20%</td>
<td>25%</td>
<td>40%</td>
</tr>
<tr>
<td>Familiar with internet websites</td>
<td>5%</td>
<td>15%</td>
<td>36%</td>
<td>44%</td>
</tr>
<tr>
<td>Awareness on YouTube-teaching resource</td>
<td>4%</td>
<td>16%</td>
<td>30%</td>
<td>50%</td>
</tr>
<tr>
<td>Generate soft notes for teaching soft materials</td>
<td>0.0%</td>
<td>18%</td>
<td>32%</td>
<td>50%</td>
</tr>
<tr>
<td>Can do some power point presentation</td>
<td>15%</td>
<td>24%</td>
<td>25%</td>
<td>36%</td>
</tr>
</tbody>
</table>

*Source: Online survey (2022)*

**Table 1: Teacher level of competencies in information literacy**

Source: Online survey (2022)
facilitated training by ministry of education and county governments for proper implantation of CBC.

Energy and lighting resources for schools

The electrification of schools in Kenya is a shared responsibility between the Rural Electrification and Renewable Energy Corporation and the Kenya Power (KNBS, 2022). One of the main goals of the energy sector is to ensure that every Kenyan has access to affordable and reliable electricity. By the year 2021, Kenya had fully registered 46,671 pre-primary, 32,594 primary and 10,482 secondary schools all totaling to 89,655. However, by 2020 204 out of 28,383 (<1%, early childhood centers/schools both public and private) had been connected with electricity. By close of the years 2019 22,648 of 23,401 public primary schools were connected with electricity according to data in Kenya Power’s strategic plan 2016-2020. Also 8,755 out of 10,390 secondary schools (84%) were connected either with solar or hydroelectricity by 2020 (KNBS, 2022). However, the unconnected schools miss out in accessing internet platforms for facilitating teaching and learning. The government should move with speed and ensure the remaining schools are connected with electricity.

It is noteworthy that the connectivity with electricity happened in significant market areas where hydro-electrify is accessible. However, many remote schools in arid areas in Kenya are yet to be connected. Some have been installed with solar panels whose cells have been damaged and broken down due to poor maintenance. A primary school head teacher in the upper eastern lamented that the school was not installed with solar panels, but no batteries or wiring were delivered on the ground.

Conclusion

The teacher’s human resource is critical in teaching and learning at basic education institutions. The trained and competent teacher is the pillar and driver of competency-based training. A teacher interprets the curriculum pathways and puts the teaching and learning into the right perspectives. The inadequate number of trained teachers in arid schools stems from long-term characteristics of trained teachers fresh from college moving to environmentally and socially stable and safe schools in affluent areas in towns and potential agricultural zones.

The study established that approximately a tenth of the primary school teachers implementing the CBC curriculum could not understand the principles of continuous assessment and found difficulties in using new CBC teaching styles with learners learning techniques.

The issue of safe and clean drinking water in schools in arid areas remain expensive and unresolved even though hygiene and adequacy of safe and clean drinking water and sanitation impact the development of children and their learning activities.

While the digital devices (tablets) were provided to some learners for the administration of schools, the situation on the ground in most schools revealed that these tablets are nonoperational. Secondly, one or none of the teachers in a school knew how to operate computer. Finally, some schools have been installed with solar power panels whose cells have been damaged and broken down due to poor maintenance. A primary school head teacher in the upper eastern lamented that the school was not installed with solar panels, but no batteries or wiring were delivered on the ground.

References

Global Education Monitoring Report, (2016); New York, UN
IIEP (2020), Analysis of the Education System, country reports; Paris IIEP


