

Harnessing the Integration of ICT in the Competency Based Curriculum (CBC) for Lower Secondary Schools in South Western Uganda

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ABSTRACT

Implementation of CBC has come with challenges which directly influence the success of learning process. However much teachers and learners are encouraged to make use of the immediate natural resources to concretize subject concepts, most of the issues center on the use of Information Communication Technology (ICTs) to harness CBC. As schools implement the integration of ICT in the CBC they ought to run it with acceptable levels of ICT literacy which aspect is lacking. The new CBC encourages schools to train ICT as a vehicle in all subjects than a standalone subject. The main objective of the study was to harness the integration of ICT in the Competency Based Curriculum (CBC) for lower secondary schools in South West Uganda. We employed the philosophy of interpretivism with qualitative research approach and inductive strategy. This is because we wanted to make a subjective judgment on the collected data as observed during the teaching and learning process (interpretivist) and study a small aspect of CBC and later extrapolate to cover the entire CBC at secondary school level (inductive). The study shows that up-to-date technology and their accessories should be working, available and accessible to facilitate CBC in secondary schools. Learners are more active when they use internet and they discover a lot on their own during and after the lesson, and this is the core of CBC. It is important to integrate ICTs in CBC implementation process as it harnesses

teaching and learning for teachers and learners respectively

Keywords: Competency Based Curriculum (CBC), Information Communication Technology (ICT), Lower Secondary Schools

INTRODUCTION

The role of education in the world has changed and the expectations of the teachers allude to a need to equip them with knowledge, understanding, skills and values as demanded by the workplaces (Nakabugo, Bisaso and Masembe, 2011). However, in many countries and Uganda in particular secondary education has been delivered in knowledge based, content based, examination oriented curriculum mode contrary to competency based learning-entailing acquisition of skills, values and attitudes.

Curriculum is a vehicle in which a country equips its citizens with necessary skills, attitudes, knowledge and values to enable it prosper socially and economically. Curriculum thus should address both individual and national needs. As the world advances especially in technology, it becomes imperative for constant rethinking about the way a country should impart the mentioned aspects to its citizens (UNESCO, 2015). A good curriculum should articulate educational domains that enable long life learning and competitive advantage through ICT. Curriculum design should be guided by a holistic and systematic mindset with much

focus on effectiveness and sustainability as provided by world movements.

The 4th sustainable development goal (SDG) insinuates that general education and specifically the curriculum that learners interact with can significantly provide an opportunity to align the education sector to SDG. The curriculum change that promotes equity and all-inclusive gives education a leverage to support socio-economic transformation of society. Technology today is appreciated as a drive to transformation and more so the revised curricula emphasize the integration of ICT in all aspects of teaching and learning (Olema et.al, 2021). Providing education which caters for both female and male children becomes a recipe for prosperity and national development. The female student has severally missed out on opportunities of learning until of late when government included gender equality in most of its programs. More so, with E. African Community integration, need to change curriculum to harmonize certification became paramount. Once the community is well integrated, every society in East Africa shall require self-sustainability in all facets of life. Sustainability shall imply meeting someone's own needs without compromising the ability of future generations to meet their own needs. In addition to natural resources, we also need social and economic resources. Sustainability is not just environmentalism instead natural, social and economic resources make its recipe. For example, a student who graduates from university should be able to start self-employment and help others; than the current job seeking attitude.

Derived from Latin word 'Currere'. meaning run, proceed and subdue, curriculum entails a total package of methods and resources applicable in solving a societal need. Harnessing therefore emphasizes control, exploitation and utilization of natural resources in solving a need. Not every resource must be bought or obtained from outside the learner environment. In harnessing the competency based curriculum (CBC) teachers and learners are encouraged to make use of the immediate natural resources to concretize subject concepts. Learning is brought closer to the learner and he/she takes the biggest responsibility for his/her learning. The realization of such a competency largely depends on the teacher's creativity. A geography teacher can create a river course using wet clay soil, blue paint, some grass all

placed on a firm base for students to see. Learning has occurred by harnessing the resources around the learner and yet a concept has been concretized.

The colonial masters, way back in 1918 designed and rolled out a study menu in Uganda, now referred to as old curriculum (OC) to cater for their interests in office management for secretaries and chiefs who were meant to know more about the colonialists' origins and general administration in their colonial work. This saw some schools built and specialized like Kings College Buddo meant to train children of the kings and chiefs. Although the OC originally had good skilling strategies, it was later modeled to fit the competitive study environment after liberalizing education. With many private schools coming up the OC emphasized content and assessment was based on the grades of the learners (NCDC, 2020). The OC had it that the teacher was the fountain of learning where the learner received what the teacher tells him/her and reproduces it at summative evaluation. Remedial classes and tests were vivid in the OC and those scoring distinctions, As, Bs, etc grades were perceived the most successful citizens; and could be allowed to enroll for lucrative programs such as Engineering, Medicine, and Pharmacy among others. However, as time went on the school, drop outs started money lending, hotels and other successful businesses where the best performers (distinctions and As, Bs) get services. This points to the fact that good grades don't necessarily mean success in future

The content based, examination oriented education system in Uganda, compelled secondary school teachers specialize in subject fields. This education has in turn produced non-productive graduates who are less competitive in the job market. Teachers are neither creative nor innovative. In view of this, government of Uganda, through ministry of education undertook several interventions. In 2005 science subjects, such as biology, chemistry, physics, mathematics were made compulsory at O'Level. Having registered several poor performances at Uganda Certificate of Education (UCE), SESEMAT program was introduced to support science teachers (UNEB, 2020). The nature of graduates and technological and global economic changes compelled the government to rethink about the education system. The current trends call for training a learner with tools and standards that can enable a learner increase access to online and blended learning opportunities to support him/her

develop deeper learning competencies (Olema et al, 2021).

1. STATEMENT OF THE PROBLEM

For the competency based curriculum to be delivered consistently, effectively and efficiently teachers as facilitators of learning ought to demonstrate acceptable levels of skills, attitude and values in blended learning approaches (Olema et.al, 2021). This is the reason why the government advocated for ICT integration in all subjects. In addition, Chrappan (2015) noted that secondary school teachers are the least supporting and inspired about the CBL especially since majority were ICT migrants. This was largely attributed to their nonbelief about the benefit of the CBC.

As schools implement the integration of ICT in the CBC they ought to run it with acceptable levels of ICT literacy which aspect is lacking. The new CBC encourages schools to train ICT as a vehicle in all subjects than a standalone subject. The integration of ICT is still a hoax due to lack of competent computer teachers and purchase of relevant computer accessories which are often expensive. The support to this effect also calls for the commitment of school management alongside parental mandates that support the learning. Additionally, the new CBC promotes critical thinking through mini projects, values, leadership, patriotism and innovation among others which should be enhanced by the teachers.

Despite the above seemingly good ideas and intention of the government to produce a self-reliant citizen and raising ICT literacy levels among learners, the effective implementation of the integration of ICT in the new CBC has stalled in most schools in south western Uganda. Once an intervention is not instituted the students' performance in the next two years (for pioneers) may not be pleasant at all. Hence a need to investigate the way the existing teaching environment can harness the integration of ICT in the CBC in secondary schools in South West Uganda.

2. LITERATURE REVIEW

3.1 Competency Based Strategies in Schools

Education institutions continue to aim at identifying better ways to improve the teaching-learning experiences of students. In this regard the competency based learning (CBL) is a relatively acceptable technique that allows learners to personalize their learning experiences. They can acquire targeted knowledge and master their pace (Sagar, 2021). The CBL is characterized by the development of clearly defined competencies, a mapping of the curriculum to achieve those competencies and the assessment process matched to the competences. Such competences are usually linked to the workforce needs as defined by employers and the profession. This insinuates emphasis on specific knowledge, skills and abilities valued by working practitioners in the field.

Uchiyama & Radin, (2009) alludes that CBL consists of instructions, grading and reporting based on an individual student's performance. It calls for the examination of the student's ability to assimilate the knowledge and skills that he/she is expected to, through a specified subject. A CBC is tailored to fit the different learning abilities of individual learner. The beauty of CBC is the lead to more efficient outcome as a result of its flexibility in meeting individual learner's ability. Also to note is that instructional strategies and methodologies in CBL ought to be action based and should occur in as much authentic place and real task as possible (Jeonghyun, 2015). Peculiar to most CBL environments is the indirect instruction where a real-life scenario is coined in which a solution is sought for a stipulated problem. Another form can pursue experiential learning which focuses on learning by doing. For example, INFO 5842, whose focus was on tools and applications to support digital curation, and students were required to work on the command line of Linux servers of dedicated applications.

The CBC focuses majorly on what the learner acquires, not the time spent in a classroom, as in the OC, which then determines the completion of course or earned credits. Of late CBL has garnered much focus to the effect that CBL improves chance for student employability. More so, it is affordable, engaging, purpose driven and flexible hence facilitating career development because learners demonstrate their desired learning outcomes as the

centre of the overall learning process (Preeti, 2021). The CBL is based on the premise of learner's progress through the curriculum at their own pace, depth and other similar traits. In assessing CBL, learners ought to know, can apply and can execute knowledge, skills, and abilities desired by the job market. Peculiar in assessment of CBL is portfolios where students are required to provide evidence of the learning outcomes and its processes, how they have developed, and where further learning is needed (McMullan et al, 2003). The portfolio includes (i) evidence of competencies-atleast two artifacts required of every learner, ii) supportive writing for competencies provide short reflective statement about the competency acquired, iii) self-evaluation-after reflective statement each learner to rate themselves on the achievement of each competency

More so, the CBC is modeled to assist the learner achieve complex outcomes of the learning process. The learner acquires knowledge, skills and attitudes vital in building a career in their area of specialization. The CBC has the following advantages: i) learning to learn where learners' curiosity and motivation are provoked to engage in lifelong learning; ii) self-efficacy where learners build confidence to tackle seemingly difficult tasks; and iii) digital Literacy where learners are exposed to digital technologies early in life and develop a culture to use the skill to create and share beneficial information.

In Kenya, CBC starts at 4 years through 18 years of age. During this time learners are exposed to a carefully and intentionally selected environment to help them acquire and apply certain skills as well as attitudes to practical situations (Voorhees, 2001). In so doing the syllabus directs learning more towards imparting competences that mirror what happens in everyday life. Peculiarity of CBC is manifested in outcomes, learner centred and differentiation (practices adjusted to meet individual needs of the learner). In guiding the differentiation, learners begin by developing understanding through an inquiry-based learning approach; then CBC fosters development of crucial soft skills like critical thinking, creativity, imagination and problem-solving in learners; and lastly learners perform numerous investigative, explorative and experimenting activities in the course of learning. The acquired soft skills place the learner in a

competitive advantage especially in business ventures.

Relatedly, the assessment mode in CBC collects evidence about activities and tasks the learner performs to determine how well they can complete them in a practical scenario. This assessment helps the teacher to create further learning activities to bridge up the identified gaps identified earlier until the learner becomes proficient (Voorhees, 2001). Assessment takes majorly three modes (Murtonen, Gruber & Lehtinen, 2017): i) diagnostic which takes place prior to the lesson and seeks to pinpoint needs; ii) formative which occurs at intervals during lessons to measure progress and assimilation of knowledge so far; and iii) summative which is usually done after the lesson and indicates whether the learning outcomes were met.

3.2 ICT Integration in Competency Based Learning

Change management has for many years been a difficult and daunting task for many organizations of which educational institutions are not exceptional. With the CBC there are some challenges. For example, i) resistance of implementers where change becomes difficult at the start; ii) lack of CBC learning and teaching resources. While some schools are well endowed, others have a dire need; iii) teachers are yet to understand the CBC pedagogy. Much as a significant number has been trained, a good percentage of teachers remain lagging. This may adversely compromise the delivery of CBC; iv) most of the key stakeholders have not really been working as a team. While many researchers focus on school environment, less attention is put on parents who need to provide basic education and support learning by giving materials especially for practical activities. Sometimes, activities administered at school need a feedback from home to see if they were completed. This alludes to a need for periodic meetings between teachers and parents for briefing (Kenya Institute of Curriculum Development, 2019).

Education sector has undergone a digital transformation, and so the digital ecosystem around education has significantly grown where the online education market in the USA is expected to reach \$319.167 billion by 2025. There are numerous factors behind this growth such as ease of learning and convenience as propagated by countless EdTech companies. These companies have collaborated with

institutions to offer affordable and accessible learning paradigms to learners. They have been harnessed by the software and tools for content creation and delivery, virtual interactions, online assignments among others (Sagar, 2021; Conrad & Eunice, 2019). Moreso, technology has on several occasions cited as a vehicle for social transformation, particularly in improving productivity and efficiency of the workers in educational setting.

In the USA CBL acted as the starting point for the next movement in the transformation of education. A similar technique influenced the design and delivery of vocational education in UK, particularly in Australia, where national reforms in the late 1980 and early 1990 required all accredited vocational education programs to be competency based (Hodges & Harris, 2012). In March 2013, the US department of education guided that colleges could begin providing student federal aid based on students' mastery of competencies, that is what students know and can do. This move has been exemplified in several initiatives such as Mozilla's Open Badges and edX's Verified Certificates of Achievement. Moreso, a shift from credit hours to competency demonstrated has been observed in for example Indiana University-Purdue University Indianapolis (IUPUI), Michigan State University and University of Wisconsin. Certificates are being offered in nursing, public health and business and technical communications (Jeonghyun, 2015). Relatedly, competency based curriculum for digital curation in higher institutions has been escalated. For example, University of North Carolina (digital curation curriculum project), University of Illinois (data curation specialization program), Michigan University (preservation of information specialization), the University of Arizona (digital information management certificate program) and University of North Texas (graduate certificate in digital curation and data management)

Now that Online learning has gone digital, it is imperative for schools to digitize their learning and develop content. This is largely supported by cloud based, responsive authoring tools designed to help in creation and scaling high quality eLearning content (Jeonghyun, 2015). These platforms exhibit advantages as pre-built templates and flexibility to create personalized content; interaction features; powerful analytical dashboards; sophisticated translation tools and manage variations to simplify

working at scale. Such tools include Elucidat, Adobe Captivate, Articulate storyline, Kitaboo author, Hootsuite TalentLMS, easygenerator, Google Classroom, Amazon CloudFront, Akamai's Aura Licensed CDN and Kitaboo Insight. Since most education institutions have related platforms, the advantages of the tools mentioned is their seamless integration with existing LMS, hence allowing smooth translation for learners; hence learning tool interoperability (Sagar, 2020).

3.3 Theoretical Framework

This study was rooted in the philosophy of constructivism particularly Dewey's social constructivism whose focus is on the need to adopt learner-centred approaches in curriculum design and delivery. Here learners construct knowledge rather than just passively take in information. The theory alludes that as a learner experiences the world and reflects upon those experiences, they build their own representations and incorporate new information into their pre-existing knowledge (schemas). Constructivism emphasizes that knowledge is constructed through interaction with others who share their experiences and the other learner maps his/hers to theirs. The constructivists advocate for: i) assimilation-process of taking new information and fitting it into an existing schema; and ii) accommodation-using newly acquired information to revise and redevelop an existing schema (University of Buffalo, 2021).

The study shall further be guided by the Kolb's (1984) theory of experiential learning where a teacher observes while learners converse so as to guide them come out with a desirable product. The teacher is a facilitator of learning. He/she triggers learners' ability to try seemingly difficult tasks. It aims at how best a learner completes a task. Additionally, Vygotsky's socio-cultural development theory whose primary focus is on supporting students through scaffolding the learning experiences; and John Hattie's Visible Learning theory which emphasizes the role of a teacher in terms of impact the approaches adopted may have on the students' learning. These theories shall register the following benefits: i) learners shall have variety of opportunities to identify needs, talents and potentials; ii) learners are nurtured to excel in their areas of greatest aptitude and ability, iii) learners shall appreciate the diversity and respect different learners abilities and values in an inclusive learning

environment; iv) enables the teacher to adapt a curriculum that befits uniqueness of individual learners; v) parents pursue a shared responsibility in the learning of their children by motivating them fulfill their potential; vi) learners can apply their skills and knowledge while addressing real needs in the community (UNESCO, 2015).

3.4 Objectives

The main objective of the study was to harness the integration of ICT in the Competency Based Curriculum (CBC) for lower secondary schools in South West Uganda. Specifically, the study intended to evaluate the readiness of teachers to integrate ICT in the CBC in selected secondary schools in south western Uganda

3.5 Methodology

The study employed majorly philosophy of interpretivism with qualitative research approach and inductive strategy. The interpretivist thought was used because the researchers wanted to collect data and make a subjective judgment as observed during the teaching and learning process. The inductive strategy enabled the researchers study a small aspect of CBC and later extrapolate to cover the entire CBC at secondary school level.

3.6 Research Design

The study used largely exploratory descriptive with cross sectional survey designs. It was exploratory in that the CBC and its co-existence with OC is relatively new in Uganda and needs keen understanding. It shall be cross sectional survey in that data was collected from sampled secondary schools at once and analyzed immediately. The researcher interacted with teachers and learners to share their experiences with the CBC in respect to ICT integration.

Additionally, to help fasten good teaching and sharing, selected KAB students in the practical leaned subjects (i.e. Chemistry, Physics, ICT, Biology, General science, Agriculture, etc) were recorded in the university studio and later shared out to student-teachers going for school Practice. Given that many times students forget what is told of them, a recording can be played on several occasions so as to re enforce ones teaching skills, especially in the new CBC in schools in Uganda.

3.7 Sampling Design

The study considered secondary schools that have existed for atleast five years (excluding COVID time), duly registered with MoE and have examination centre number. Such secondary schools were from the south western districts of greater Mbarara, Kigezi, greater Bushenyi, Ibanda, Kamwenge, Kitagwenda and Kiruhura. Having government registration number, UNEB centre and existing about five years assumes such a school is established enough and complies with ministry directives with ease. The districts were purposefully sampled, because they form south western Uganda and due to varying number of teachers and students, stratified sampling sufficed too. Two teachers, male and female teaching arts and sciences and have taught for atleast 3 years in a UNEB authorized school setting were our informants. These teachers were purposefully nominated by the DOS of selected secondary schools. Each district nominated every 1st name on the list (systematic sampling) of both government and private aided secondary school with above qualifications. Female staff were considered for gender equality and three years are adequate enough to have registered with the ministry as an authorized teacher. The study considered interacting with the district/municipal inspectors of schools as the overall supervisor of teaching and learning in the district/municipality.

3.8 Methods of Data Collection

Data was collected majorly by interview and focus group discussion methods supplemented by observation of the school setting and learners in the CBC classes. Interview guide on the current teaching practices in CBC was administered on teachers who do the actual teaching, DOS who oversees the academic work and reports; while students were observed during the library and project periods. The interview and observation methods were preferred because they allowed the researchers gain a deeper understanding and discover latent linkages in the delivery of teaching and outcomes of learning while integrating ICT in the CBC.

3.9 Methods of Data Analysis

The collected data was subjected to Vensim 9.0 where the latent patterns in the teaching were unearthed and a thematic analysis using system dynamics diagram followed suit. A theme is a common, recurring pattern across a data set,

clustered around a central organizing concept (Braun and Clarke, 2006). Majorly the conceptual level of data management was used. This focused on querying data and model-building activities such as linking codes to networks. The study combined both grounded theory and framework analysis. While in grounded theory (emergent coding) data spoke to the researchers, the framework analysis considered the researcher proposing themes and codes to be looked up in the dataset.

3.10 Ethical Issues

All participating schools were not mentioned in the study instead were given codes

All informants were required to sign a letter of consent indicating: i) anytime one could opt out of the exercise without prejudice; ii) their names not mentioned anywhere; iii) they were free to share on the research output thereafter; iv) permission to involve the minors (learners) was obtained from the school head teacher on behalf of parents; and v) once one opts out before work is complete, no payment should be advanced.

All literature cited were duly acknowledged and referenced

An official letter from the Directorate of Research and Publication to introduce the researchers was obtained before going to the field

Study findings to be shared among participating schools through a dissemination workshop

3. FINDINGS

Responses from the focus group discussions and interviews show that;

The current CBC needs UpToDate technology and its accessories that support blended learning

The required ICTs must be in place and readily available whenever needed. Some computer labs have nonfunctional computers or intermittently function which affects effective teaching

Some school management does not commit to serving the needs of ICT training. While some schools prioritize construction and feeding, others hardly replace a broken ICT peripheral

While some relevant technologies are expensive, school budget priorities often affect availability of these technologies. This is common in government schools where funds are limited and often come late.

Students' discipline matters in getting learners pay heed to learning ICT and use it in various subjects. Sometimes their attitudes to learning especially being creative is bad.

Most parents leave learning to teachers and pay less attention to their children. Even once asked to contribute to better learning of their children, they cry of no money and yet demand for better grades

Most government schools under USE attract many students, in 1000s and yet have limited space. Even the Teacher-Pupil ratio is challenged and this adversely affects effective teaching and learning

There is a tendency that the male students are more familiar with ICTs than their female counterparts. In the CBC learners learn together; once asked to form groups girls and boys tend to form their unique groups

For proper integration of ICT in subjects, there ought to be reliable internet connectivity. This exposes teachers and learners to the diaspora and get familiar with other practices which can help them contextualize their learning.

Teachers and so learners need regular retooling on new trends in technology and how to use the emerging hardware modification. The CBC requires teacher's innovativeness which comes with constant refreshment of the mind. More so the school management needs to be brought on board so as to appreciate the need of ICTs in subjects

Teaching and learning cannot occur on computer alone. There ought to be reference sources to supplement the hands-on. These text sources need to be adequate, UpToDate and contextualized.

Ugandan education system has a strong bond with political space. Some policies and implementation of government projects has often been affected by the political climate. If the constituency is dominated by opposition party, chances are low to get full and timely support of the government.

Once a system is instituted, there ought to be business continuity so as to remain relevant. If learners only encounter computers at schools and they cannot continue interacting with it, then the relevance of ICT training quickly vanishes.

The Vensim System Dynamics Diagram below presents the latent factors for effective ICT integration in the CBC in lower secondary schools.

Figure 1 shows that the emergent themes include teachers' literacy levels, attitude towards ICT, school management commitment and teacher's innovativeness. These four themes are key recipes for integration of ICT in the CBC. Furthermore, the

study found that the identified thematic factors are influenced by external and institutional support while being moderated by socio-economic factors which have a direct impact on the learner

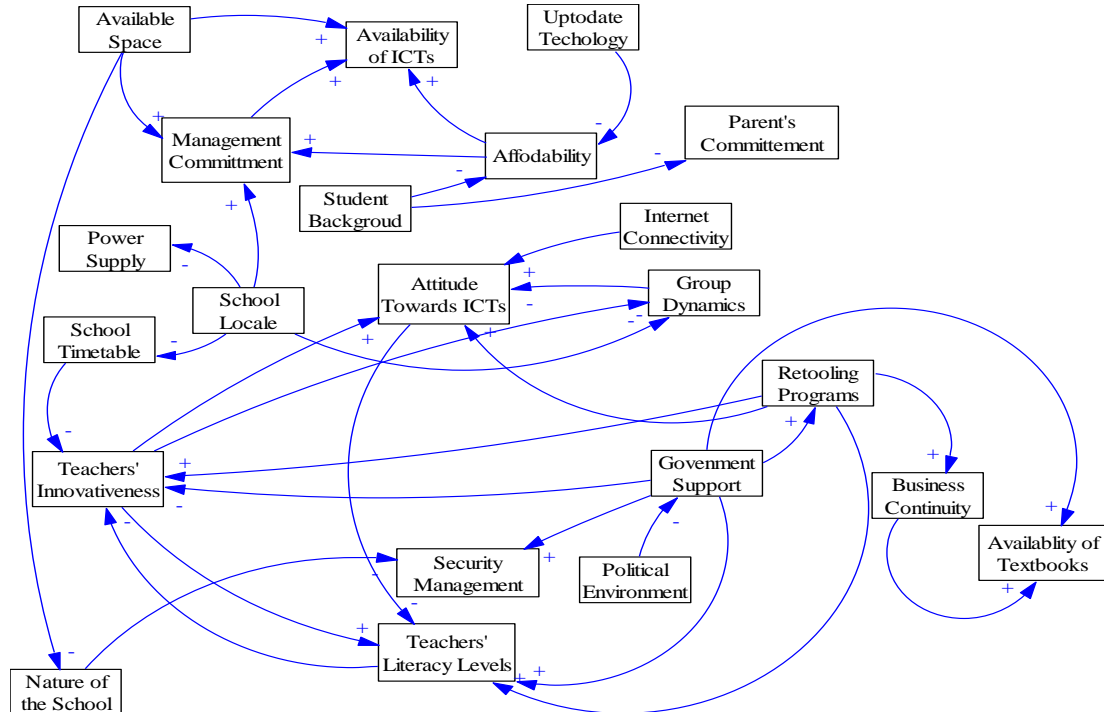


Fig. 1: System Dynamics Diagram with hypothetical directions, and it paves way for the theory presented below.

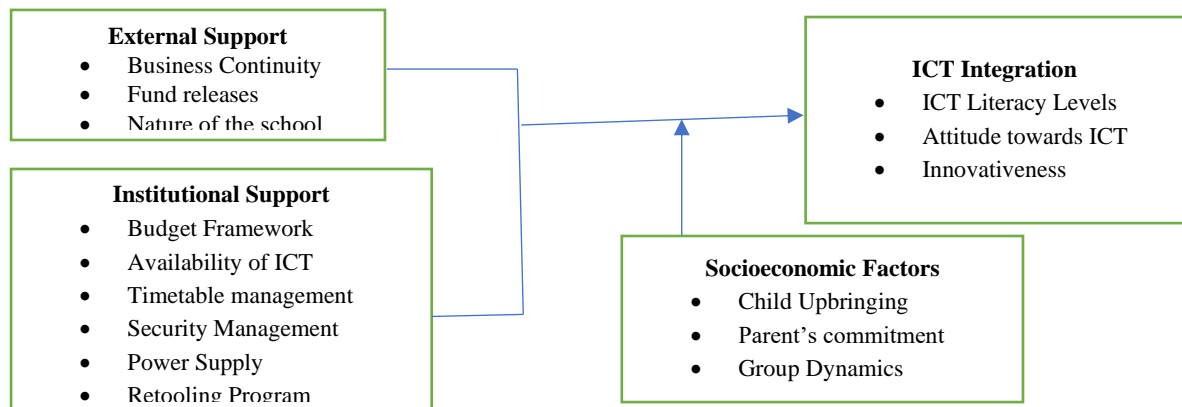


Figure 2: Theory of Effective Integration of ICT in the Competency Based Curriculum

Figure 2 shows that once schools have adequate government support, herein operationalized as external factors, the integration of ICT can yield tangible results. Furthermore, the institution ought to commit itself to support and securing relevant accessories, safe guarding them and refreshing the instructors on pertinent teaching modalities. Since

learning is a web where key stakeholders (i.e. learners, school administration, parents and government) interrelate with an aim to achieve a common goal.

4. DISCUSSION OF FINDINGS

The study shows that up-to-date technology and their accessories should be working, available and accessible to facilitate CBC in secondary schools. It is also noted that some of the stakeholders like school directors, head teachers do not commit to the acquisition, maintenance and training which has led to minimal usage of ICTs in CBC implementation environment

The findings collaborate (Nakabugo, Bisaso and Masembe, 2011) and allude that today's work forces calls for suitable skills that add value and transform society. Furthermore, education systems need regular institutional redesign so as to produce citizen that can propel his country quite far and enhance business continuity (UNESCO, 2015). The findings point to the need for integration as means to boost innovation and creativity that have a remarkable effect on society transformation. The CBC aims at producing citizens that can fend for themselves This is enhanced when learning is blended and learner centred (Olema et.al, 2021). Furthermore, learning, specifically, action based should be experiential with world realities (Jeonghyun, 2015). With such a learning paradigm education institutions advocate for purpose driven and flexible learning hence facilitating career development because learners demonstrate their desired learning outcomes as the center of the overall learning process (Preeti, 2021).

The socio economic transformation of communities is achieved by applying certain skills as well as attitudes to practical situations (Voorhees, 2001). Learners ought to cultivate a positive attitude towards their own setting. Modern and blended learning are recipes for leaner centered education. This is enhanced by suitable software and tools for content creation and delivery, virtual interactions, online assignments among others (Sagar, 2021; Conrad & Eunice, 2019). Technology in education is pertinent and needs accommodation-using newly acquired information to revise and redevelop an existing schema (University of Buffalo, 2021).

5. CONCLUSION AND RECOMMENDATIONS

From the findings it is important to integrate ICTs in CBC implementation process as it harnesses teaching and learning for teachers and learners respectively. Both of them benefit immensely from

this kind of learning environment that is facilitated with ICTs.

Learners are more active when they use internet and they discover a lot on their own during and after the lesson, and this is the core of CBC. However, in the current context, there are inadequate ICTs in most schools in the country to implement CBC and has made it hard to achieve the intended goals and the core objectives of CBC.

The inadequacy of ICTs poses a big threat in achieving learning outcomes in the current situation /learning environment putting into consideration the cost attached in acquiring, upgrading and updating the ICTs against limited or no budget in some schools.

6. RECOMMENDATIONS:

There is a great need to sensitize parents and other stakeholder about their role in implementing CBC and the use of ICTs. This has a significant contribution on attitude of ICT users.

Since ICTs are central / core and expensive on the other hand, the school management should have a budget to cater for the needed ICTs and include them among its priorities every term. Modern and state of the art ICT infrastructure is a recipe for innovation both for the teacher and the learners.

Regular retooling for teachers on the evolving trends in ICTs. New technologies keep emerging and it is a mandate of school management to equip and support teachers and learners innovate for learning.

Equip the computer Lab with a technician responsible for maintenance, upgrading and updating the ICTs used in the learning process.

Both the teachers and technicians should guide the management on procuring the most relevant ICTs from time to time.

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