

Empowered School Environment for Effective Learning in Uganda's Muslim Founded Primary Schools

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Abstract

We present the envisioned framework for Empowered School Environment (ESE) in Uganda's Universal Primary Education (UPE) schools. An ESE is critical for attaining functional literacy, numeracy and life-skills that deprived children need to become confident, resourceful, innovative and high achievers in life. Launched in 1997, UPE was introduced to create and sustain an inclusive and enabling school environment for upward social mobility of children from poor households. However, 25 years down the road, the envisioned mobility remains a distant dream. We attributed this irksome shortfall to a series of Barriers to Effective Learning (B2EL) in UPE schools; specifically, in schools founded by Uganda's Muslim community. The barriers include, but are not limited to: overcrowded classes; scarce learning materials; teacher-centered learning; lack of school meals; poor water, sanitation and hygiene; teacher apathy; and lack of PWD-friendly environment. The B2EL are exacerbated by declining government spending on the education sector and rising household poverty. We gave the implication of the barriers for the learning achievement, and suggested a framework for mitigating the barriers so as to promote and sustain ESE in Muslim founded UPE schools.

Keywords: barriers to effective learning, empowered school environment, Muslim founded primary schools, Universal Primary Education, effective learning

Introduction

Functional literacy, numeracy and life-skills are three essential skills that lay the foundation to a meaningful education system in any country. Without a firm preparation in these foundational skills, other subject skills become impossible to acquire (Hungu & Thuku, 2010). Government of Uganda's (GoU) White Paper

on Education (1992) recommended the introduction of Universal Primary Education (UPE) program to achieve human development through: (i) provision of facilities and resources to enable every child enter and stay in school up to completion of the primary education cycle. (ii) making education equitable to eliminate disparities and inequalities. (iii) ensuring that education is affordable to poor Ugandans. (iv) reducing poverty by equipping every individual with functional literacy, numeracy and life-skills (Bategeka et al., 2004).

In 1997, UPE was launched to open access of deprived children to primary education (Ngaka, 2006). School communities were mandated to create an Empowered School Environment (ESE); which means an inclusive, conducive and enabling teaching-learning context for the upward social mobility of underprivileged children (African Promise, 2017; MoESST, 2014). Under UPE, children from poor households were expected to join school, advance through the system and complete the seven-year primary education cycle (Mukisa, 2019). The removal of school fees led to exponential growth in gross enrolment from 3.1 million pupils in 1996 to 7.6 million in 2003 (Bategeka et al., 2004), to 8.4 million by 2013 (Agaba, 2014), to 8.6 million by 2016 (Namirembe et al., (2017), and close to nine million children by 2019 (MoES, 2020). Access to primary education for girls, Pupils with Disabilities (PWDs) and orphans jumped from 39% in 1997 to nearly 60% by 2017 (Uganda Bureau of Statistics-UBOS, 2019).

Government has built more classroom space, provided instructional materials, and recruited and deployed more teachers (UBOS, 2019; MoES, 2018). Indeed, GoU has made great strides to invest in equitable access to affordable education for all Ugandans (MoES, 2019). The exponential increase in gross enrolment demonstrates that school fees payment was a big impediment to accessing education (Unicef, 2021). According to UBOS, 2019, UPE program demonstrates how a poor country with a committed government and donor support can ensure universal access to education for its citizens. Accordingly, the 2019 Human Rights Measurement Initiative of 2019 gave Uganda a score of 92.3% for high primary school enrolment (Uganda National Planning Authority, 2020). However, as GoU is praised for its remarkable performance at the gross enrolment front, the same cannot be said about the worth of the learning environment in remote rural and peri-urban Muslim-founded UPE schools.

Why Muslim-founded UPE Schools

Uganda's education system is composed of two categories of schools in terms of ownership and management. Private schools under the management of non-government agencies, and government aided schools. While all UPE schools are government schools, their management and administration is greatly influenced by their founders (Ministry of Education & Sports-MoES, 2019). In Uganda, 73% and 27% of primary schools were founded by religious and non-religious bodies respectively. However, over 60% of the former is largely funded by government. The Education Statistical Abstracts for 2013, 2014, and to 2017 show that on average; 26% of UPE schools were founded by Church of Uganda, 25% by the Catholic Church, 11% by the Muslim community, and 4% by the

Seventh Day Adventists (SDA) (Republic of Uganda, 2013; 2014; 2015; 2016 & 2017). As regards the quality of School Learning Environment (SLE) in UPE schools countrywide, Catholic Church-founded schools have the most tolerable SLE, followed by SDA-founded schools, followed by Church of Uganda-founded schools. At the lowest level of the SE quality tolerability scale, are schools founded by the Muslim community (Musisi & Kiggundu, 2018; Ssengendo, 2012; Songayroun, 2007), hereafter referred to as Muslim Founded Primary Schools (MFPS)

In other words, of all UPE schools founded by religious bodies, MFPS are the most beleaguered by a series of Barriers to Effective Learning (B2EL) notably, overcrowded classes, teacher-centered learning methods, lack of school meals, teacher apathy, inadequate water, sanitation and hygiene facilities, and pupils with disability-unfriendly environment. The B2EL undermine the capacity of these schools to create and sustain an ESE (African Promise, 2017; Ssengendo, 2012; Kasozi, 1986; Kiyimba, 1986). Regardless of the great gross enrolment strides made, as highlighted earlier, children in MFPS are not enjoying ESE. Yet, an ESE is what underprivileged children need to be active in the classroom, and stay in school up to completion. Besides, an ESE in MFPS is a very big incentive for Muslim parents to send their children to school and ensure that the children attend school regularly. So, the key to a fruitful UPE lies in ESE, which is a sound, motivating and inclusive school environment managed by motivated and well-trained teachers. We thus, postulate that as long as the B2EL continue to plague MFPS, the goals of UPE and the intentions of the pioneers of Muslim education in Uganda, will not be realized.

Barriers to Effective Learning in Ugandan Primary Schools

Whereas UPE school leadership was mandated to create ESE for upward social mobility of the deprived children (African Promise, 2017); the learning environment in MFPS leaves much to be desired (Uganda National Planning Authority, 2020; Musinguzi, 2019; Uwezo, 2019). Largely, MFPS are typified by a palpable lack of; adequate classroom space, parental support, mid-day meals, scholastic materials, sanitary facilities, amenities for PWDs, and teacher commitment (Okaka, et, al., 2019). The situation is aggravated by the inability of school leadership and teachers to adequately: support pupils facing physical, social and behavioral challenges; recognize and shape opportunities to benefit schools in view of available local resources such as land, space, human resources, public, government, parents' and community goodwill; and to experiment with novel solutions to existing problems (Holvoet & Inberg, 2014; MoES, 2009). Below, is the snapshot of the B2EL in Uganda's public primary schools.

First, the rapid enrolment in MFPS results in what can accurately be described as Uganda's classroom crisis (Mukhaye, 2022). Data on Uganda's pupil-classroom ratio of 2018 singled out three districts in Eastern, Northern and West Nile regions: Maracha (171), Kaabong (140) and Butaleja (133) as having a class size twice the national average of 58 pupils. The three districts are followed by Kole (108), Arua (103), Bukedea (101) and Bukwo (101) districts.

Generally, 60% of the districts in Uganda have classes larger than the national average (Monitor Reporter, 2022; MoES, 2015; 2017; 2018). This implies that millions of children do not enjoy learning due to overcrowded classes that make schooling an irritating undertaking for both teachers and learners alike. If one visits an MFPS in any remote rural area, one is likely to find over 100 pupils crowded in a barely furnished classroom occupying every available space, with as many as five pupils sharing a desk. Some sit on the floor, others stand at the back and in aisles, clutching their tattered books to their chests (Wachiaya, 2017).

Pupils are at the receiving end of a teacher's monotone recitations geared towards rote learning. Since active teaching is difficult in such overcrowded conditions, teachers use didactic methods of teaching that are uninspiring and demotivating to pupils. Didactic approaches; curtail pupils' active participation and social interaction, force pupils to work alone thereby missing chances to share the process of discovery with their peers, suppress pupil collaboration that is an essential and valuable skill in school and in life, and limit their opportunity to develop communication and critical-thinking skills (Nangosi, 2014; Wordpress, 2014; Watkins, 2013). Besides, didactic methods limit the development of emergent functional literacy, numeracy and life skills; the foundational skills deprived children need most to reach their full potential and face the world with confidence (Wordpress, 2014). Thus, while all MFPS children, except the severely handclapped, have great potential to learn, this potential is wasted away by uninspiring teaching methods routinely employed by overworked teachers.

The second B2EL is lack of motivating learning materials. The common learning materials in a typical rural MFPS are; overused chalkboards, ragged charts plastered here and there, and a few overused copies of the prescribed textbooks. No pupil enjoys sole use of a textbook and the workbooks, readers, and other core materials needed for pupils to enjoy lessons are in very short supply. Teachers lack materials they need to prepare lessons, share with their pupils, and guide their lessons (UN News, 2012). Since learning is more effective when the impression on the pupil's senses is more vivid, attractive and striking; lack of inspiring learning materials hinders pupils' readiness to use all senses to learn. Yet, the more senses a pupil employs, the bigger the impression made on her/his mind, the greater his/her understanding, and the longer she/he can retain and practice what is learnt. This is consistent with a Chinese proverb: "to hear is to forget, to see is to remember, and to do is to understand" (Kewaza & Welch, 2013).

Under the circumstances, teachers resort to pumping pupils with morbid content, as teachers circumvent hard topics by giving pupils few classroom exercises to ease their assessment burden. More often than not, teachers use heavy-handed disciplinary tactics to keep their overcrowded and often restless classes under control. Many focus on helping the brighter pupils to get good grades, normally used as a sign of teacher effectiveness. Consequently, the classroom climate in MFPS is not motivating at all, which makes learning uninspiring and less meaningful to learners. Besides, the knowledge that pupils

acquire is hardly retained, which undermines pupils' functional literacy, numeracy and the life skills (Oboko & Wasswa, 2020; Serin, 2018; USAID, 2016).

The third B2EL is low teacher commitment and effectiveness, the most important predictors of learning, critical for successful implementation of education programs (Mendenhall, et al., 2020; Ochwo, 2013). Teacher apathy, precipitated by demoralizing working conditions, ferment systemic neglect of duty in MFPS. Welfare-induced apathy caused by lack of; school lunch, on-site accommodation and inadequate classroom facilities lead to widespread neglect of duties (Mugerwa, 2016). About 32.3%, of UPE school teachers come late; over 35% miss at least two workdays a week; and teacher laxity and neglect of duty is overwhelming (Oboko & Wasswa, 2020; Talemwa & Eupal, 2019). The situation is aggravated by shortage of experienced and competent teachers. Owing to scarcity of learner-engaging instructional materials in Uganda's Primary Teachers' Colleges; many young teachers are not adequately exposed to active teaching devices. This largely explains why many are not eager and/or able to use pupil-engaging instructional techniques (Kewaza & Welch, 2013).

Teach for Uganda (n.d.), in their online article, observed that since UPE teachers are assured of their salaries, they can afford to avoid work at will because they are less accountable. So, they pretend to teach just as a formality. The losers in all this teaching charade are the pupils, who may also be happy when teachers do not show up because it gives pupils chance to play or escape from school to go to the nearest trading centres. Teachers who bother to teach place their chairs in the corner of the classroom and narrate a certain topic to a class with more than 100 pupils. They pay no regard to lesson planning, proper classroom management, explicit and differentiated instruction, or use of proper learning aids. What matters to them is for pupils to meekly respond in unison, "yes teacher" to every question (Mendenhall et al., 2020).

The fourth B2EL is poor Water, Sanitation and Hygiene (WASH) conditions. Most UPE schools face acute lack of safe water, hand washing facilities, decent latrines and bathrooms. Whereas the operation and maintenances of WASH facilities is at the bare minimum in most UPE schools, the situation is more serious in MFPS where there is greater need of water for ablution before the daily prayers. In addition, poor WASH condition is more severe for adolescent girls, who are the major victims of poor menstrual hygiene management, low functionality and usability of the less than meagre facilities available, and lack of funds for operation and maintenance of the facilities. Adolescent girls have to endure this barrier, which often results in spending limited time at school due to their need to go back home to freshen up. But once gone, some do not return to school for the rest of the school day (MoES, 2017).

The fifth B2EL is lack of mid-day meals in most MFPS. The imagined community contribution towards UPE failed to materialize due to parents' delusion that education is free. GoU's directive that parents pack lunch for their school going children is not working. Yet, school feeding and good nutrition is

crucial for effective learning. Over 60% of UPE pupils stay at school hungry, and only eat in the evening when they get home. This is mainly due to: high poverty levels—on average, 48% of households cannot afford to take two meals a day; changing weather patterns due to climate change; lack of linkage between schools and the agriculture sector, which limits production of foods for school feeding; lethargic school administration; inept school management committees; poor community mobilization skills; and parents' preoccupation in bread-winning activities (Uganda National Planning Authority (2020).

The sixth B2EL is lack of PWD-friendly schools, which renders it extremely hard for special needs pupils to cope in such deprived school environment. Most MFPS are unable to support PWDs because they cannot afford braille, large print and digital text, wheelchairs, clutches, hearing aids etc. Resources are not available for hiring and maintaining specialist teachers, and building specialized toilets and ramps to ease access to different areas of the school compounds. Most teachers in MFPS cannot read or interpret sign language, and many lack the skills to handle pupils with mental health problems (Talemwa & Eupal, 2019). Consequently, many PWDs have lower attendance rates, and are more likely to leave school before the final grade. Many are expelled at a rate more than double that of their non-PWDs peers (Ssenkaaba, 2017). Thus, a combination of discrimination, lack of teachers trained in inclusive teaching methods, and lack of accessible schools leave PWDs vulnerable to being denied their right to education (Rueckert, 2019). USAID (2016) estimated that only 6% of PWDs who enrol at Uganda's primary school level make it to the secondary school level.

The situation is much more dire in refugee schools where classrooms are dangerously overcrowded and teachers are overwhelmed. There is an average of 161 pupils per classroom in Uganda's refugee hosting areas, three times more than the national standard (MoES, 2019). Pupil-teacher ratio was 113:1 compared to 57:1 outside the settlements; and the pupil to English textbook ratio was 51:1 compared to 38:1 outside the settlements. In Arua refugee settlements, the pupil to classroom ratio was 350:1 (Uwezo, 2018). Whereas 46% of the schools outside refugee settlements had some charts and other visual learning aids, only 28% of the schools in settlements had such learning materials. For the learning outcomes, 90% of grade three refugee pupils were unable to read, comprehend and divide (UNICEF, 2021; Schulte & Kasirye, 2019). Children with disabilities in refugee schools are especially vulnerable to stigmatization, exclusion, isolation, and violence. This limits their ability to access education, relate with their peers and foster psychosocial well-being (Crea et al., 2022).

Implication of the B2EL for Learning Achievement in MFPS

In view of the B2EL so highlighted, it is hardly surprising that the learning achievement in schools is very disappointing. According to UNEB report (2018) on National Assessment of Progress in Education—NAPE, 45% and 40% of grade six pupils who took the 2017, were capable in numeracy and English literacy, respectively. The 2016 East African Region Education Survey revealed

that 38% of children aged 10-16 passed a combined mathematics and literacy test, compared to 63% in Kenya and 50% in Tanzania (Uwezo, 2018). A survey conducted in collaboration with MoES revealed that 31% and 7% of grade six pupils were ranked in the top four out of the 8 competency levels in reading literacy and mathematics, respectively (Hungu & Thuku, 2010).

Another learning assessment report published by Uwezo in 2019, showed that the percentage of grades three to seven pupils who could read and comprehend a basic primary two-level material dropped from 39% in 2015 to 33% in 2018. The percentage of the same pupils who could do grade two division and multiplication dropped from 52% to 45% (Uwezo, 2019). Wakiso District with the best performing schools in Uganda, whose literacy levels had risen from 8% in 2014 to 25.7% by 2019, had their performance reversed by Covid-19 disruptions in 2020-2021. The district literacy levels fell from 26% to 14% by 2022. The decline was attributed to high prevalence of teacher-centred, academic-based and examination driven teaching-learning approaches, and to teachers who lack innovative teaching methodologies needed to teach large classes (Uwezo, 2019).

In the wake of the Covid-19 crisis, teaching became more teacher-centred and theoretical as schools attempted to make up for the lost instructional time, which caused literacy and numeracy levels to plummet even further (Safieldin, 2021). Evidence shows that the appalling state of UPE is likely to get worse because of Uganda's fast-growing school-age population vis-a-vis the declining national budgetary allocations to education (Uwezo, 2019). Budget allocations have been steadily declining from 17% in Financial Year (FY) 2007/2008 to 14% in FY 2011/2012, to 11.1% in FY 2017/2018, to 10.5% in FY 2019/2020, to 8.54% in FY 2022/23, and to 7.91 in FY 2023/2024 (Unicef, 2023; Elisabeth, 2012). This is a major setback against the Dakar declaration benchmark of 20% of annual spending (Unicef, 2020).

The implication of all this is that the SE in MFPS fundamentally differs from that envisaged by the pioneers of Muslim secular education. Prince Nuhu Mbogo and Prince Badru Kakungulu envisioned that to be relevant in the world to come, Muslims needed to acquire skills like those possessed by their Christian counterparts at the time. In 1944, Prince Badru Kakungulu launched a campaign to promote secular education in Quranic schools. The Prince launched a campaign for Muslims to start their own schools to dispel their fear of sending their children to Christian Missionary schools. In 1947, the Prince and other like-minded Muslims founded Uganda Muslim Education Association (UMEA) to promote access to secular education. By mid-1960s, UMEA had over 180 primary schools in Uganda (Kasozi, 1986; Kiyimba, 1986).

By founding UMEA, the pioneers envisioned that Muslim children would become functionally literate, numerate, and life-skilled, and would end up confident and high achievers. Regrettably, this vision has not been realized. Children who patronize MFPS lack an early start in education, go to deprived schools where they stay hungry all day long and end up unable to learn, read,

write or subtract two numbers by grade six (Uwezo, 2019). Consequently, the children suffer low self-confidence, low productivity, and end up as low achievers in life. Evidence shows that children from the poorest households are seven times more likely than those from the richest households to rank in the lowest 10% of pupils' learning achievement (Watkins, 2013). As for PWDs, the situation is much worse because very few PWDs join school, and those who do drop out very early due to the special needs-unfriendly school environment.

Classes in refugee settlements are full of children who have seen their homes destroyed and their relatives injured or killed. Some children may have disabilities, either from birth or as a result of the violence in their home countries. Some are former child soldiers, survivors of sexual abuse, and some who made the journey to safety when their siblings did not. Their education will have been interrupted for weeks, months or even years. On average, UNHCR estimates that refugees miss out on three to four years of schooling because of forced displacement. The classrooms are crowded, with Ugandan children rubbing shoulders with their refugee classmates. While UPE enables refugee children to attend school, it exerts an extra burden on teachers and other staff. In most cases, lessons are held in a language that refugee children are only beginning to understand (UNHCR, 2023).

Thus, while poor parents often fail to have their children functionally educated, this is not due to lack of trying. The parents are simply let down by the dis-empowered MFPS environment. A Muslim girl-child starts life with a huge educational disadvantage. She grows up in a home with no books, no toys, and no one to read out to her. Much as she goes to the nearest MFPS, her parents cannot help her much because they do not know what she is learning, how she is learning, the challenges she is facing, what fascinates her, and what stresses her. Her weakness and strength remain unexplored. It is hardly surprising that many Muslim girls drop out of school early. We agree that an ESE makes a huge difference in these children's lives since it is what they need to decisively break the vicious cycle of deprivation they are trapped in (Watkins, 2013). Regrettably, the environment in MFPS is far from empowered, a fact that is awfully disconcerting to all who care about the future of the Muslim community.

Hence, we strongly believe that an ESE can transform disadvantaged children because it is where they can functionally learn to be literate, numerate and life skilled; which are the foundation of lifelong learning and learning how to learn. We believe that an ESE underpins further development in language, literature and math as well as the sciences, geography, history, religious studies and other subjects as a child transit to secondary school and beyond. We believe that an ESE is the foundation of academic subjects, disadvantaged children can learn about basic health care and hygiene, citizenship, human rights and where, how and from whom to get help. We also believe that an ESE is the first step towards higher education that can empower disadvantaged children even the more to stand on their own and prepare for a more productive future regardless of where they will end up living as adults.

Finally, since disadvantaged children need functional skills to realize their potential and society needs the same skills to create jobs, promote innovation and economic growth; the learning crisis in MFPS carries a huge cost. The crisis: commits generations of children and youth to a future of poverty, insecurity and unemployment; starves Uganda of the skills needed for enterprise and innovation; undermines prospects for sustained economic growth (Watkins, 2013); and jeopardizes Uganda's quest to become a middle-income economy. Since children in MFPS have a right to education that can promise them a better future, and the right to expect society to do something about it; we can accept this crisis as a sad fact of life, or we can do something about it. In keeping with the pioneers of Muslim education in Uganda, we propose to mitigate the hemorrhage of skills, talent and human potential precipitated by the B2EL.

Theoretical Benchmark

We benchmarked the Theory of Change (TOC) to envision the Empowered School Environment for Effective Learning Intervention (ESEELI). According to the Center for Theory of Change, Inc. (2023), the TOC is a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context. Our desired change is to empower MFPS by mitigating the B2EL so as to promote effective learning. The TOC will guide the initiative to fill in the missing middle (ESE) between the intervention and how it can create and sustain an inclusive and enabling school environment for the upward social mobility of children in MFPS. The TOC will guide us to work back from the goals of UPE to identify all the conditions and outcomes that must be in place and how they relate to one another causally, for UPE goals to be realized.

By mapping out all the conditions in an outcome framework, the TOC will provide the basis for identifying the type of activity or intervention that will lead to the outcomes as preconditions for empowered SE in MFPS. Through this approach, the precise link between activities and the achievement of ESE will be fully understood. This will lead to better planning, since the activities are linked to a detailed understanding of how an ESE will actually happen in MFPS. The TOC will guide the evaluation of the intervention, since the theory permits measuring progress towards the achievement of ESE in MFPS that go beyond the identification of program outputs.

In summary, the TOC will guide us to map out the initiative through the six stages recommended by the Center as: (i) Identifying long-term goals of MFPS. (ii) Backwards mapping and connecting the preconditions or requirements necessary to achieve an ESE in MFPS and explaining why these preconditions are necessary and sufficient. (iii) Identifying the basic assumptions about the current MFPS environment. (iv) Identifying the interventions that the initiative will perform to create an ESE. (v) Developing indicators to measure the outcomes to assess the performance of the intervention. (vi) Writing a narrative to explain the logic of the intervention (Centre for Theory of Change, Inc., 2023); here after

referred to as Empowered School Environment for Effective Learning Intervention (ESEELI).

ESEELI Framework

The ESEELI framework envisions a concerted effort of MoES, donors, local governments, UMSC, UMEA, UMTA and civil society to create and sustain an ESE in MFPS. This will be achieved by facilitating MFPS through: provision of Play-based Learning Materials (PBLMs); training teachers in active learning methods; provision of at least one hot meal per school day; improving WASH conditions; and creating a PWD-friendly learning environment. To sustain the ESE, each school will establish a School Community Empowerment Venture (SCEV) to be managed by the school community. Each MFPS will partner with its community to: identify viable income generating ventures, basing on locally available resources, skills, talent and market opportunities; build the capacity of the community to manage the SCEV profitably and sustainably; mobilize capital to start-up and scale-up the SCEV; and the SCEV take over the responsibility to support an ESE. MOES and local governments will create an enabling environment, working hand in hand with UMSC, UMEA, UMTA, Civil Society and donors.

Figure 1 is the diagrammatic illustration of the ESEELI framework, followed by its justification:

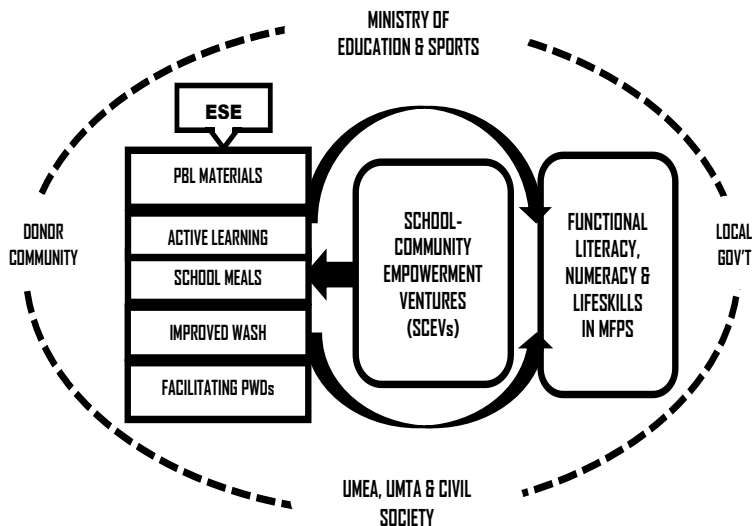


Figure 1: Empowered School Environment for Effective Learning Framework by Kiggundu, Musisi & Kiweewesi, 2023

Play-based Learning Materials

The materials are oral-visual that promote learning through play to promote learning in English/Arabic, mathematics, science and life skills. Teachers organize learning activities in ways that allows pupils to be active by

playing as they experiment in more ways to reach the learning goal. Teachers give timely feedback as they guide pupils to help them improve and get a better chance to succeed. Pupils adapt tasks to their play skill levels to improve their motivation to learn and intensify their task difficulty, which helps them improve their skills. The materials help pupils divide complex tasks into shorter and simple sub-tasks to deal with the complexity of the tasks at hand, provide different routes to success, and incorporate reward and recognition activities by teachers and peers. Being rewarded and appraised promotes pupils' self-esteem and social status (Kim, 2015; Marczewski, 2013).

Besides, the materials give pupils: ownership of their learning, freedom to fail and try again without negative consequences, chance to increase fun and joy in learning, opportunities for differentiated instruction, chance to make learning visible, inspiration to discover intrinsic motivators for learning, learning through contexts that are familiar and meaningful to their innately self-motivating ways; deepening content knowledge in literacy, numeracy and life skills; and cognitive and social emotional foundation that is essential for their school readiness and academic success. Lastly, the materials enable teachers to: change their disposition from didactic teaching to facilitative, supportive, and stimulative teaching that motivate pupils' interest to learn; communicate and interact with pupils by encouraging them to collaborate with one another in more constructive ways; promote social interaction to enable pupils cultivate justice and fairness that will guide them through life; change pupils' mind-set towards learning to enable them form new connections between ideas, materials and the world they live in; and encourage pupils to take risks, make and change rules, negotiate and learn to collaborate, explore, and learn from their mistakes (Mendenhall, et al., 2021; O'Leary, 2021; Sujit & Cudney, 2018).

In 2022, we were invited by the coordinator of education for Windell International to demonstrate the use of the PBLMs in Table 1, in Nothern Uganda's Kiryandongo Refugee Settlement and Western Uganda's Nakivale Refugee Settlement. Four schools were involved in the demonstration, two schools from each of the two settlements. We worked with school administrators, teachers and pupils from Early Childhood Development, lower primary, and upper primary school levels. It covered English and Mathematics for the primary levels; and life skills (teenage pregnancy, gender-based violence, wellness, HIV, family matters, alcohol/drug use/abuse and Entrepreneurship) at upper primary and lower secondary levels. We also trained 82 UPE teachers in Wakiso district, sponsored by Save the Children International (SCI), in how to use the materials in a real classroom setting. All the stakeholders involved in the demonstrations, appreciated the materials as very helpful to learners with regard to: exploring different concepts and developing a sense of enquiry through information gathering; developing expressive and receptive skills; fostering effective communication; developing social, cognitive, critical thinking and motor skills; and improving decision and problem-solving skills.

Table 1

PBLMs for English, Mathematics & Life skills by Vital Bridge Educational

Product/Kit	Product Focus	Target Group
PBL Materials For Pre, Lower, Mid, And Upper Primary		
English/Arabic Kits	Oral visual learning; Letters and order of the English and Arabic alphabet; Letter sounds; Word building; Sentence construction; Reading and comprehension.	Pre-primary and Lower Primary (One Kit per 6 to 10 Pupils)
Mathematics Kits	Naming Shapes; Counting from 1 to 10. Counting and writing Numbers from 1 to 25; Order of the numbers 1 to 25; Counting and writing Numbers from 25 to 50; Counting and writing Numbers from 50 to 100; Writing Numbers from 1 to 100 as Number words; Elementary Addition and Subtraction using Numbers	Pre-primary and Lower Primary (One kit per 6 to 10 Pupils)
Mathematics Kit	Application of Multiplication tables; Multiplication, division, addition and subtraction in big numbers.	Upper Primary (One kit per 5 to 8 Pupils)
English & Arabic Kits	Identifying and working with Verbs, Nouns, and Tenses.	Upper Primary (One kit per 6 to 8 Learners)
Mathematics	Mental Math in Multiplication, Division, Addition and Subtraction.	Upper Primary (One kit per 6 to 8 Pupils)
Life Skills Kits		
Product	Product Focus	Target Group
Cov-Youth Radio Reader	Covid 19 and other Communicable diseases; Non communicable diseases.	Upper Primary
TAU Tool Kit InfoShield, LifeSteps and Tag	Covid 19; Gender Based Violence, Menstrual Hygiene Management, HIV, Wellness, Teenage Pregnancy, Family and Community matters.	Mid and Upper Primary, (One kit per 6 to 9 Pupils)
TDI Tool Kit Triangles, Red Card & Help Line.	Alcohol /Drug Use/Abuse Prevention and Control.	Upper Primary (One Kit per 6 to 9 Learners)

Source: Vital Bridges Educational, South Africa

School Meals

Even with the best PBLMs and well-trained teachers in place, hunger still impairs pupils' ability to concentrate and learn effectively. Uganda Bureau of Statistics report—UBOS (2018) shows that 66% of learners at primary level were not feeding at school. Of the eight million children that attend school in Uganda, only 33% were receiving meals at school. This has implication for cognitive

development, school performance and achievement (National Planning Authority Report [NPA], 2020). The MoES stated that hunger is one of the main reasons children perform poorly in UPE schools because hungry children have poor concentration and mental abilities, absenteeism, bad behaviour, poor health and end up dropping out of school. School feeding is thus, an essential component of ESE in MFPS because it improves physiological growth, school enrolment, learning, and overall cognition (MoES, 2019). A daily school meal is a vital incentive to keep children in school and it allows them to concentrate on their studies (Uganda National Planning Authority, 2020 citing Drake et al., 2015).

Besides, not feeding a child at school is a violation of their rights under the United Nations Declarations on the Rights of the Child, and other international protocols and conventions to which Uganda is signatory (National Planning Authority, 2020). But while MoES issued guidelines for school feeding and nutrition, aimed at improving child health, nutrition and educational performance, most schools are unable to implement these guidelines (NPA, 2020). Urban children are more likely to receive a school meal than their rural counterparts (UBOS, 2018). Yet according to UNESCO (2022), school meals achieve much more than just full bellies. School meals fuel educational opportunities, social protection, gender empowerment, and economic growth. Absence of sustained school feeding is thus, one of the leading causes of poor learning achievements (National Planning Authority Report, 2020; Abizari et al., 2017). So, in addition to PBLMs, sustained school feeding is critical for building and sustaining an ESE.

Water Sanitation and Hygiene

It is not only lack of PBLM and school meals that hinder effective learning. Lack of basic facilities a child expects at school, including WASH facilities is a key B2EL. All MFPS need a steady supply of safe water because of the need to perform ablution for their daily prayers. Adequate WASH ensures children's health and ability to learn, allows pupils equitable access to quality education, and creates a conducive learning environment, as a means to prevent disease and promote health and well-being. Lack of access to adequate WASH facilities lowers attendance and educational achievement (Rajanbir, et al., 2018). In school, WASH is a priority under the Protocol on Water and Health (USAID, 2016), and since children are the potential future change agents of in the community, it is critical that MFPS instill good WASH practices in children. Otherwise, the schools risk turning into breeding spaces for diseases that can spread to the wider community. Contaminated water supplies and poor hygiene and sanitation practices are a major cause of diseases such as; diarrhea, dysentery and transmission of infectious diseases such as Covid-19, TB, urinary tract infections etc. Illness often causes pupils to miss school, adults to miss work, and families to incur high medical expenses, which cause misery to the entire community (The Republic of Uganda, 2020). Absence of clean, safe and separate toilets for boys and girls discourages girls from attending school regularly (The

Republic of Uganda, 2022). Thus, in addition to PBLMs and school meals, WASH is another critical component of an ESE.

Pupils Living with Disability-friendly School Environment

Even with PBLMs, school meals and WASH facilities; PWDs cannot enjoy a MFPS if their needs are not met. By 2017, there were 9,597 PWDs enrolled in pre-primary schools, majority of whom had mental impairment (28%) hearing impairments (25%), visual impairment (22%), physical impairment (16%), autism (5%) and multiple handicaps-deaf and blind (4%). There were 172,864 children with special needs in primary schools, which was 2% of total primary level enrolment and 9% of the overall children with special needs. Of these, 27.2% had hearing impairment, 22.7% had mental impairment, 25.8% had visual impairment and 17.9% had physical impairment. In terms of gender, 52.6% and 47.4% of PWDs were males and females respectively (World Bank Facts Sheet, 2020; MoES, 2017). However, retention and quality of education for PWDs is negatively affected by lack of physical capacity, infrastructure, and learning materials, inadequate teacher expertise, negative attitude, and stigma (WHO, 2021). Such infrastructural and attitudinal difficulties lead to unfriendly learning environment for PWDs. Most MFPS are typified by impassable or unavailable facilities for PWDs. One in ten teachers is trained in sign language in MFPS and the schools have scarce specialized materials and equipment such as braille papers, Perkins braille's and braille text books, and special units to meet the special learning needs of PWDs. MFPS lack specialized toilets and ramps to ease access to different areas of the school compound (Ssenkaaba, 2017).

This leads to continued absenteeism, poor academic performance and growing dropout rates of PWDs. Lack of specialized sports facilities restricts PWDs from pursuing their sports ambitions, as well as leading to poor body healthy for PWDs (Ssenkaaba, 2017). Most MFPS are not within easy reach of PWDs in rural areas where transport is a big obstacle. This is aggravated by lack of assistive aids to enable movement through rough terrain, and slippery roads during rainy season (WHO, 2021; Nangosi, 2014 Moyi, 2012). Yet, a PWD-friendly MFPS would benefit PWDs not only from socialization, but also from specialized services such as individualized case management, targeted outreach, and early childhood interventions. PWDs experience physical difficulties accessing schools, classrooms, and latrines (Crea, et al., 2022). It is not surprising that only 6% of PWDs who enroll in Uganda's primary schools join secondary education (Sarton & Mark, 2018).

School-Community Empowerment Ventures

In Uganda, poverty is a major structural barrier to attaining and sustaining an ESE. The Human Development Index (HDI) is still very low and the number of people living below the poverty line increased to from 6.6 to 10 million by 2018. Only 52% of households could afford to take two meals in a day on average (UBOS, 2017). This explains the negative attitude of parents towards feeding their children at school. Parents snubbed government school feeding directives,

which impacts on pupils' school performance. Teachers tussle it out with parents over providing children with school necessities. So, poverty hampers UPE since parents/guardians are poor (NPA, 2019). Since a poor SE is intimately linked to economic deprivation; it is critical that MFPS are economically empowered in a sustainable way so as to promote ESE.

We propose that each MFPS establish a SCEV to serve as a sustainable source of income and/or food and other requirements. Managed profitably and sustainably, SCEVs can multiply the positive economic potential and impact of the community to support MFPS sustainably. For instance, the Purchase for Progress (P4P) model of home-grown school feeding can support school feeding initiatives sustainably. Farmers and local businesses benefit from the school community-driven market demand in a "Buy from the Community for the School" (BCS) or "Buy from the School for the Community" (BSC) arrangement. The Seed to Plate (S2P) business model generates money at every point of the production value chain to support MFPS sustainably. Finally, children benefit from eating culturally diverse, familiar, nutritious and locally grown foods, with a boost in household income. The SCEVs strengthen local markets and can be a strong and sustainable initiative because they respond to the school community needs, are locally-owned, and can promote parental and community involvement in MFPS.

Since SCEVs connect schools to the community, families, farmers and/or local businesses; they have high potential to generate: (i) economic benefits—increased household and school income, price support and inclusion in the market. (ii) social benefits—food and nutritional security, living conditions, MFPS teachers' welfare and social inclusion. (iii) environmental benefits—crop variation and greater production of locally marketable products. Although most parents experience difficulties in contributing towards school feeding amidst increasing poverty levels and unfavourable weather patterns, parent-led school feeding is the most sustainable approach. Evidence shows that where parent-led or community-led school feeding is adopted, pupil performance improved and teacher-parent relationships were enhanced (NPA, 2019).

While most UPE schools are rural, service and other non-agricultural SCEVs represent a promising source of income to sustain an ESE. Non-agricultural SCEVs can offer a relatively higher profit margin, can be run with less space, and can create new business opportunities and jobs in MFPS communities. Generally, the expected benefits of SCEVs to MFPS communities include: Fuller use of school land, human and infrastructural resources; skilling of the staff, pupils and parents; increased MFPS community visibility; new job opportunities for communities; new markets for local products; and strong partnerships with businesses, civil society, and organizations at local, national, and international levels. Figure 2 is the ESEELI implementation flow diagram.

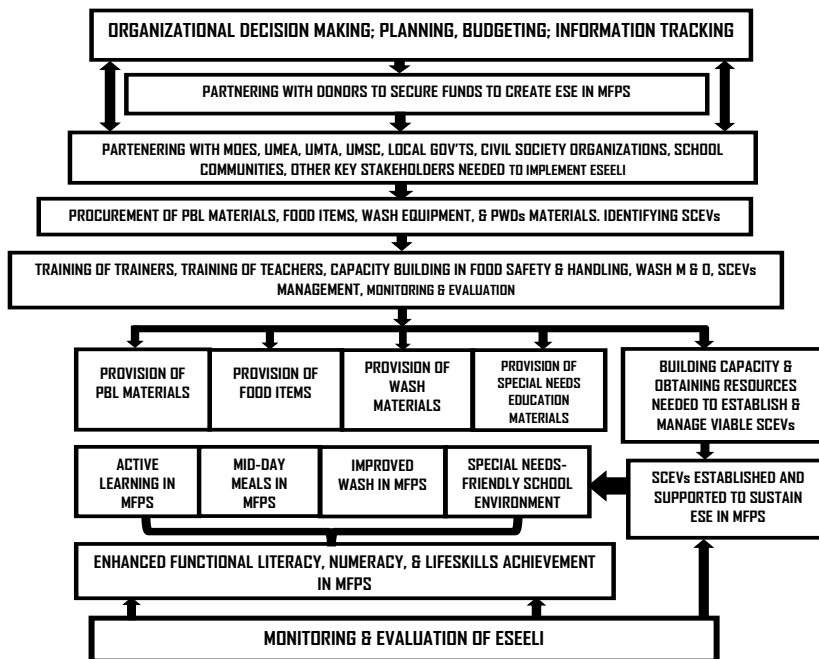


Figure 2: ESEELI Implementation Flow Chart by Kigundu, Musisi & Kiweewesi

Conclusion

We do not claim to have all the answers or even most of the answers to the learning crisis in MFPS. Neither do we claim that ESEELI is a panacea for all the woes of MFPS in particular, and UPE schools in general. We, however, know that we have to find ways to sustainably mitigate the B2EL afflicting MFPS for over two decades. Systemic lack of pupils' motivation to learn and/or stay in school denotes a school environment that is extremely disheartening for learners and teachers alike. It is also clear that an ESE is what teachers need to do their job diligently and that pupils need to learn effectively, so as to reach their full potential and face the world with confidence. We thus, went beyond lamentations and blame games, to making a modest proposition, bearing in mind that lighting a candle is better than cursing the darkness.

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