

EMPOWERED SCHOOLS EMBRACE THE COMPETENCY BASED CURRICULUM: SHARING THE KENYA CONNECT EMPOWERED SCHOOL MODEL IN MACHAKOS COUNTY

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Abstract

Rural public schools face many challenges and are severely under-resourced. Students are eager to learn and parents see schools as a means for upward mobility for their children. However, public schools struggle due to lack of resources, overcrowded classes, and outdated teaching methodologies. Kenya Connect, a Non-Governmental Organization in Wamunyu, Machakos County has been working to enrich education for the last twenty years. In 2019, we piloted an “Empowered School” program with Sofia primary school participating. This program provides the creation of Professional Learning Communities among the teachers, resources to the schools including art supplies, rulers, educational posters, after-school LitClubs in partnership with LitWorld plus Level-Up Village STEM classes, refurbishing the classrooms with fresh and bright paint, cork-boards and strips to hang student work. In order to be an “Empowered School” all teachers and the head teacher agreed to participate in weekly professional development and other Kenya Connect programs. The Parent Management Committee was also consulted and needed to give their support. Teachers are now using strategies to facilitate a student-centered classroom and are seeing a deeper engagement in learning. We have been monitoring the test scores and noted that the Empowered Schools have higher student achievement than our other partner schools. In 2020, our Empowered Schools scored a mean score of 320 out of 500 against our regular schools who scored 280 out of 500 in the Kenya Certificate of Primary Education. As well, teachers are reporting that students are using critical thinking and problem solving skills, in addition to being more creative.

Keywords: Education, professional learning community, empowered, enriched

Introduction

Founded in 2002, Kenya Connect is an NGO working to engage and empower students and teachers with 21st century skills. Partnering with 62 public schools in the Mwala Sub-county of Machakos County, we have designed and implemented strategies to break down barriers to education while providing enrichment programs for students, teachers and parents. Instead of creating a “model school” as some NGOs have done, we believe our model of working in partnership with public schools and the local Curriculum Support Officers will reach more students and teachers, especially in the schools that are severely under-resourced. In 2019, we piloted a new initiative, the Empowered School Program as a deliberate strategy to build an intentional learning community within a school community that also supports the key tenets of the competency-based curriculum (CBC).

Background

For many Kenyan’s seeking to have the best education for their children, private academies have been an expensive solution. By digging deeper into their pockets, parents believe that their children will be at a competitive edge if they go to private schools. Generally, private academies perform better in national exams than their counterparts in public schools. The irony is that the teachers in both academies and public schools go through the same teacher training colleges and have roughly the same qualifications. Why then do academies do better than public schools? Part of the reason

is due to lack of essential resources and continuous professional development in the classrooms. Does this mean all Kenyans seeking the best education for their children have to follow the route for academies? Building more academies will only benefit a small population of students whose parents can afford to pay the high fees continuing to leave out 70% of learners, most who live in rural areas. The solution lies in empowering teachers in public schools and providing them with more resources; a model that Kenya Connect is piloting in four public primary schools in the Mwala sub-county.

Many solutions to strengthen education in Kenya come from external groups. Researchers, educators and philanthropists from outside the country develop solutions that they believe will make a difference. Some do, but often they lack true buy-in and fade away after several years. Our solution is innovative since it comes from the community. Our team has worked with schools for almost twenty years and has developed a comprehensive strategy to strengthen education through better training of teachers, providing digital resources and library books for students, and incorporating parents as part of the solution. Building relationships and trust with school communities is at the cornerstone of our work.

Relationships also extend to key partnerships with educators in other parts of the world. Partnering with LevelUp Village to provide dynamic STEM classes, working with the Commonwealth Education Trust to provide "bite-sized" professional learning classes designed for African teachers and celebrating literacy by partnering with LitWorld to provide LitClubs and LitMoms allows us to incorporate well-developed classes and curriculum into our programs by members of our team. Other initiatives like School Library Days, The Reading Challenge, Radio Read Aloud, and computer training were developed and led by our staff. The Empowered School model works because all stakeholders (parents, teachers, students, and community leaders) are part of the solution. Combining multiple Kenya Connect programs together and supporting teachers with training and resources is making a difference for rural students.

At the same time, we knew that good teachers need resources and a bright classroom. We also believed that after-school enrichment programs that focused on developing literacy, critical thinking, problem solving and creativity would help students develop 21st century skills.

Hypothesis

Providing ongoing professional development to teachers and enrichment activities like LitClubs, library and STEM (Science Technology Engineering and Mathematics) programs to students results in their improved education outcomes.

Methodology

Partnering with Rural Public Schools for over 15 years, Kenya Connect began looking at our programs and identifying the key elements that we believed were the most important in improving student learning and achievement. At the same time, we researched model schools and private schools seeing the "added value" programs that they offered. Teacher Professional Development was always a component of our work, however, we knew for long-term sustainable change that we needed to "train the trainer" and to engage teachers in directing their learning. Speaking to another NGO, SeaVuria based in Kenya, we learned of the Professional Learning Community model.

Our classroom observations prior to the implementation of the Professional Development programs in schools unveiled rote learning strategies that were teacher centered. Teachers were less engaged in reflections on their teaching practice and basically taught to “clear the syllabus”. We did further research on the PLC model and began implementing it with a small group of teachers. Classroom observations that occurred after the professional development demonstrated a change of teaching methods and student engagement. Teachers were engaging pupils with more learner-centered approaches while attending to different learner needs. Learning strategies such as brain breaks, turn and talk, reflective questioning, and movement-based learning strategies have made the learning lively and ensures that every learner is engaged.

Results and Discussion

The Empowered School Program

“Education is the most powerful weapon which you can use to change the world,” Nelson Mandela.

Kenya Connect created the Empowered School Program in one partner primary school in 2019 and added three more in 2020. Currently four schools, Sofia, Maanzoni, Ngangani and Kisola are participating in this program to strengthen education. The program had a hiatus when the Kenyan Schools closed for 9 months due to the pandemic. However, the teachers were eager to start Professional Development again in January 2021 and the other aspects of the program.

In order to be considered as an Empowered School, the entire school has to commit to our guidelines. First and foremost, the Head Teacher and teachers must agree to participate in almost weekly PLC meetings and to share feedback on strategies incorporated in the classroom. In addition, the school management committee, who is consulted, agrees to support the initiative. Finally, students are required to participate in our School Library Days with our bus bringing books to the schools every other week. This is aimed at building a culture of reading among the learners. According to Otike Fredrick 2011, *reading and reading culture develop over a pro-longed period of time and an early promotion will be able to mold them into lifelong readers.* Empowered Schools are also required to host LitClubs and LevelUp Village enrichment classes.

At the heart of the program is the creation of Professional Learning Communities and Teacher Professional Development. This program engages 100% of the teachers (roughly 12 teachers per school) in a Professional Learning Community and Teacher Professional Development Program to include 21st century teaching/learning while incorporating key tenets of the Kenyan competency-based curriculum. Along with providing dynamic Professional Development, this project furnishes desperately needed teaching supplies including hands-on materials such as math manipulatives, word cards, and games and craft supplies including paper, colored pencils, educational posters, and markers. All students (roughly 250 per school) are required to participate in the Kenya Connect library card program and our bus and truck lending libraries visit the schools every other week for book check-out. In addition, teachers are encouraged to borrow books to use in their classrooms including sets of books for class reading, knowledge books to augment specific lessons and read aloud books for group reading. We also offer after-school STEM classes in partnership with LevelUp Village and each school offers LitClubs (one for boys and one for girls) for students in grades four and five. Students in these schools were also invited to participate in the annual Reading Challenge.

Notably, the Professional Development programs have incorporated digital learning for teachers through using the Teach 2030 Program with the Commonwealth Education Trust. For many

teachers, it is an opportunity to learn content as well as improve their digital skills. As a result, teachers are now understanding how they can incorporate digital technology into their classrooms and in their own professional learning.

Professional Learning Communities

Teachers are at the heart of learning, yet many are struggling with incorporating the competency-based curriculum while “getting through” the syllabus. With very limited resources, overcrowded classrooms, and training in more passive teaching methodologies, teachers are frustrated and overwhelmed. Professional Learning Communities (PLC) promote teachers learning from one another through engaging in dynamic teacher professional development, trying new student-centered teaching strategies in the classroom, and sharing successes and challenges with each other. According to Parrey Graham 2007, *learning from each other is professionally more rewarding and effective than previous experiences in more traditional professional development has been. Therefore, school leaders looking for ways to improve teaching practice should: before looking to the outside, start by looking within.*

Kenya Connect has offered professional development sessions that highlight a variety of teaching strategies including the “turn and talk,” strategy that promotes collaboration, critical thinking and creativity, the use of drama and art, and hands-on learning using manipulatives. According to the World Literacy Foundation Impact Report 2020-2021, learning to read and write is very vital for any individual since the skills empower children to continue learning and to make informed choices into adulthood. Kenya Connect works with the PLC groups to help them build a culture of reading in their schools through read aloud activities, augmenting course content with knowledge and story books, and encouraging students to read. Studies have shown that students who read at least 20 minutes a day have improved test scores. With the national exams in English, it is even more imperative that students read to improve their fluency, comprehension, and writing skills.

In June 2021 we began piloting Teach 2020, an on-line teacher professional development program easily accessed on a smartphone, tablet, or Chromebook with The Commonwealth Education Trust based in the UK. This program is not only providing content that is in sync with the key tenets of the CBC, it is helping the teachers to become digital learners. Teacher Dorcas from one of our empowered schools shared:

“With the introduction of Teach2030 through Kenya Connect, I have taken courses using my smartphone. I am now using digital devices to interact with learners in the classroom and I am also comfortably integrating technology in my teaching and learning. I learned how to search for information from various educational websites and how to present it to my learners. This has made learning in my classroom very interesting.”

Enrichment Activities for Students

Kenya Connect is partnering with U.S. based LitWorld to provide an afterschool enrichment program for students at our Empowered Schools. LitClubs help the students to grow in their sense of identity and confidence. The sessions are structured around LitWorld’s seven strengths: belonging, curiosity, friendship, kindness, confidence, courage and hope, which in turn, helps students to advance their skills in reading, writing and raising their voices. LitClub member Muendo shared:

“In Tiger LitClub we learn different things which helps us to pass our exams. Teachers are always happy when we pass our exams and encourage us to participate well in the Li Club sessions. At home our parents are happy when we share stories to them about our LitClub. During the classes

we learn about 7 strengths which gives us courage and confidence when answering questions in class. Tiger LitClub is the only place we are proud of ourselves because we have fun and read the best story books.”

David, the Tiger LitClub mentor commented:

“Muendo Muthini used to be really shy and he didn’t know how to deal with all of the class work at school. He just wanted to stay quiet and did not participate during LitClub sessions. After mentors realized how he was behaving during the session, we started engaging him in the activities, especially the community building activity and through “turn and talk”. With time he could answer any question and became more confident when participating. He even began leading others in prayers when starting and ending the session.”

In addition to LitClubs, students at Empowered Schools are participating in LevelUp Village classes. These classes connect students in Kenya with students in the U.S. on a variety of topics that promote hands-on learning and STEM. Students have participated in Global Sound Musicians in which students make instruments out of tossed away materials, Global Water Crisis in which students learn about water pollution and filtration, Global Inventor where students learn basic coding and how to make an item with a 3D printer, and Global Conversations which focuses on a global book discussion. Robert recently participated in the Global Water Crisis Class. He said:

“During this term, we have been learning about the water crisis through LevelUp Village. In this course, I learned about water filtration. Teacher Patrick taught us how water seeps into the ground. I learned how to clean water to make it safe for drinking. What has excited me the most is the experiments we have been doing with our teacher Patrick about water filtration and how underground water can be contaminated by human activities.”

Teacher Patrick has commented that teachers at the participating schools are noticing a difference in learners who participate in LUV classes. They are more curious learners, not afraid to ask questions or answer in class, and excited about learning.

Finally, all the participating schools get a “spruce up.” Classrooms are painted with bright colors, cork boards and wall strips are installed so that teachers can hang student work and other educational materials. Educational posters are provided to the school and teachers are encouraged to make their own posters with materials supplied by Kenya Connect. These bright learning environments are conducive to engaged learning. Educator Mark Philips commented, “The physical structure of a classroom is a critical variable in affecting student morale and learning.” Edutopia, 2014

Specifically, the Kenya Connect Empowered School Program is providing: Teacher Professional Development for all teachers in a range of topics and subjects including the creation of a Professional Learning Community (PLC) in which teachers share lesson ideas and methodologies with each other; support to teachers with implementing the Competency Based Curriculum (CBC); participation in the Commonwealth Education Trust (CET) Teach 2030 program to promote student centered learning via bite-sized lessons accessible on a smartphone or tablet; observation and feedback to the teachers on lessons; provision of STEM computer classes in conjunction with partner Level Up Village (www.levelup.org) and the donation of the content-rich World Possible Rachel Plus Device, laptop and projector; provision of classroom learning kits including maps, materials to create “world walls,” writing sheets (such as individual newspaper, thematic comic prompts, specific story prompts), math manipulatives and games, arts and crafts supplies and other

supplies requested by the teachers; enrolling all students and teachers in KC’s library card program; the creation of LitClubs at each school, and installation of cork boards to hang students’ work and repainted classrooms.

Early Results

The Empowered School program was launched in 2019, but it was not fully operational initially due to the Covid-19 coronavirus pandemic. Once schools reopened, we resumed the program and in 2021 it was fully operational. Anecdotally, we have heard from teachers’ at all four participating schools that they are grateful to be part of the PLC program and have altered their teaching as a result of what they have learned. They have worked to make their classrooms more student-centered and are seeing students more engaged. They have also been intrigued by the LitClub and LevelUp Village programs and often stay after school to see how the Mentors are engaging students since they have seen a real change in the behavior of the students who are in these programs. As a result, they are trying some of the techniques and activities in their own teaching. During PLC sessions, they are also sharing that their students are more engaged in learning, demonstrating critical thinking and creativity, becoming more self-directed and are embracing digital literacy.

We are also seeing an improvement in student writing, especially for those students who are active readers. Their writing is becoming more descriptive, creative, and organized. Students are asking to borrow more books and are excited about the stories they are reading. Some of the teachers are actually building time in their day for regular read aloud stories and student personal reading. In addition, we have been tracking student results on the KCPE. The four Empowered Schools had a composite score of 320 (out of 500) as contrasted to our other schools which had an average score of 268 in the test results that were released in early May 2021.

A Case Study of Empowered School Model at Sofia Primary School

In 2019 we started a LitClub for the grade five class at Sofia Primary school. Basically, LitClub provide safe space for boys and girls to develop a love for reading, writing and communication skills. As at the time of starting the club, grade 4 was the lowest performing grade at Sofia PS with a mean grade of 285.62 out of 500 marks. We started two gender exclusive clubs for boys and girls with students meeting weekly for one hour instruction with our mentors. One year after the introduction of the LitClub, the students in the LitClub class were the best overall not only in Sofia PS but in Wamunyu Zone with a total of 18 primary schools.

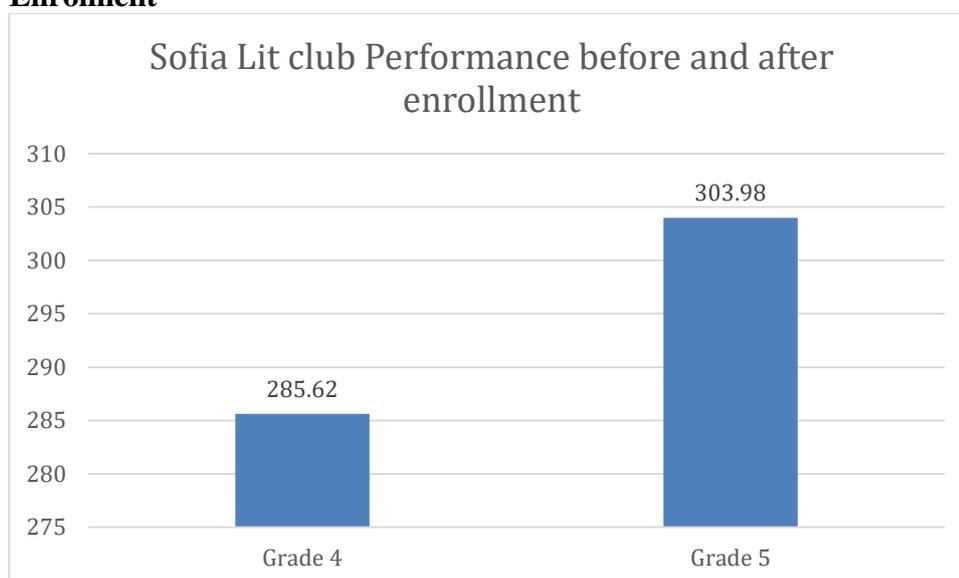
Table 1: Test scores for grade four at Sofia Primary before enrollment in LitClubs

S/NO.	ENG	KISW	MATHS	SCIENC E	SOST/C.R. E	CLASS MEAN
1st term	41.15	46.63	63.73	65.55	57.1	274.16
	40.6	58.78	54.4	70.6	49.3	273.68
	40.45	50.21	60.47	70.74	70.03	291.9
2nd term	45.63	61.68	58.55	63.3	59.98	289.14
	44.97	61.31	56.92	64.36	62.15	289.71
3rd term	45.12	47.12	52.2	70.1	59.79	274.33
	45.46	67.81	67.51	66.92	58.7	306.4
Annual Avarage						285.62

Table 2: Test scores for Grade five at Sofia Primary School after joining LitClubs

EXAM TYPE	ENG	KISW	MATHS	SCIENC E	SOST/CR E	CLASS MEAN
1st term	46.65	57.05	68.11	66.27	67.08	305.16
End term	50.81	65.33	67.3	61.72	66.11	311.27
2nd term	56.33	64.03	64.22	64.66	60.33	309.57
End term	57.26	60.44	65.5	57.11	64.69	305
3rd Term	59.19	62.37	53.41	59.84	54.08	288.89
Annual Average						303.98

Figure 1: Comparison of performance of LitClub at Sofia Primary before and After Enrolment



Upon enrollment of the grade four class in litclub programs, the class improved from an average of 285.62 to 303.98 out of 500 which is equivalent to 3.67% increment. The performance of the Lit club class at Sofia PS is quite impressive. It has kept increasing each year despite the challenges faced in 2020 due to Covid-19. Not only have the litclub students improved in academic performance but also in their confidence levels and overall discipline. Their teachers have complimented our mentors and the litclub program for the transformation they see among the students. By and large, the program has been beneficial to the students in this school and among other four schools and we anticipate a great improvement in performance in the coming years.

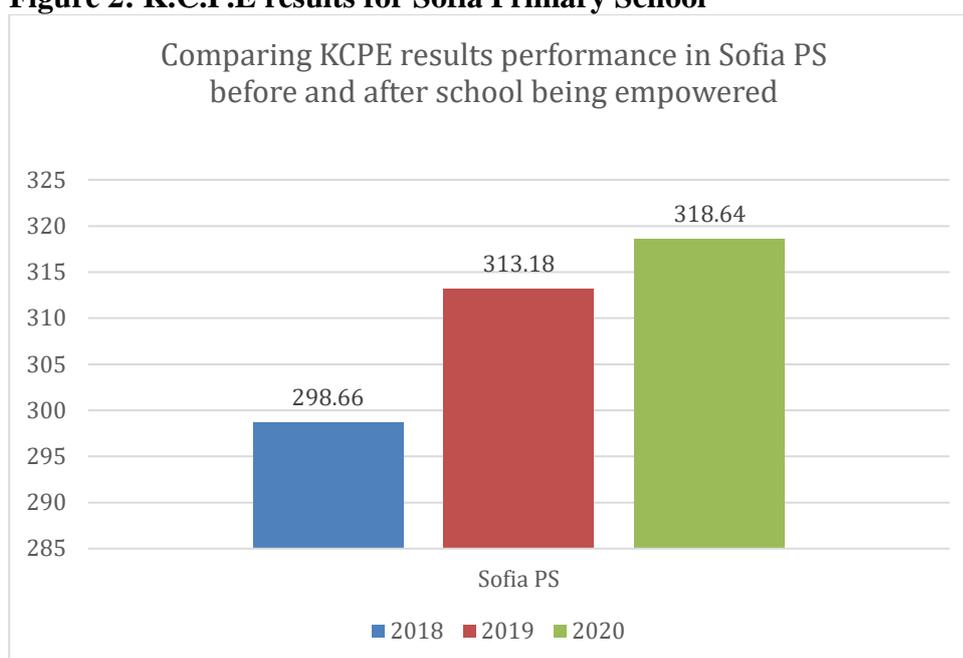
Kenya Connect has been piloting the empowered school model in Sofia since 2019. The KCPE results data analyzed below were collected before and in the subsequent years after the program begun. 2020 was a challenging year for the school-going children due to the closure of schools as a result of Covid-19. Kenya Connect mentors provided written assignments to the litclub students during this time which helped to keep the students engaged and so they did not lag behind.

Table 3: KCPE Performance for Sofia Primary from 2018-2020

Year	English	Kiswahili	Maths	Science	Social studies	Mean
2018	56.5	57.13	61.73	59.3	64	298.66
2019	64.11	60.13	61.02	64.06	63.86	313.18
2020	60.83	66.91	61.69	65.66	63.55	318.64

From the analysis in table 4 above, Sofia Primary School has been improving steadily year after year since it adopted the empowered school model.

Figure 2: K.C.P.E results for Sofia Primary School



The performance in KCPE at Sofia PS has been increasing each year, defying the challenges faced in 2020 due to Covid-19.

Conclusions and Recommendations

Although we are still in the pilot phase of the Empowered School Program, we are seeing student achievement moving in a positive direction and students and teachers engaged in new modes of learning. School enrichment programs have been so successful that teachers are asking if we can offer more LevelUp Village, LitClub programs and additional hours of professional development sessions at their schools.

The teachers are also becoming self-directed learners through the Commonwealth Education Teach2030 program. In 2022 we will add two additional Empowered Schools bringing our total to six. It is our goal to have the PLC groups come together for a meeting so that the teachers can share strategies and ideas together. We believe that every student deserves a robust education whether they are in public or private school. The Empowered School Program is helping to bridge the divide.

Since private academies are not affordable to most people and especially those living in rural areas, the Empowered School model is a good solution to be scaled up in many rural schools as a measure

of bringing equity and bridging the gap between private academies and public schools. According to Shiundu (2019) if Kenya is to avoid fostering an education-based caste system, the government should live up to the commitments it made in the 2003 reforms. It must invest in quality public education, ensuring that young Kenyans' future opportunities do not only depend on their parents' ability and willingness to invest in schooling.

Instead of investing resources building academies, the stakeholders in the education sector should ensure rural public schools are empowered through additional resources and professional teacher development to affect better education outcomes.

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